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October 2005 Job No. 1301.01

Mr. Leland Smith Pipeline Excavators P.O. Box 1755 Sebastopol, California 95473-1755

Subject:

3rd Quarter 2005 Monitoring Report

Pipeline Excavators, 5715 Sebastopol Road, Sebastopol, California

SCDHS-EHD Site #00001115; NCRWQCB Site #1TSO641

Dear Mr. Smith:

This report presents the results of the 3rd Quarter 2005 groundwater monitoring and sampling event performed at the subject site. The site is approximately located as shown on the attached Site Location Map, Plate 1. This work was performed in accordance with recommendations from Mr. Dale Radford of the Sonoma County Department of Health Services Environmental Health Division (SCDHS-EHD).

Monitoring and Domestic Well Sampling

On September 12, 2005, groundwater samples were collected from monitoring wells MW-1, MW-2, and MW-4 through MW-7, and domestic wells DW-6100 and DW-6140. The approximate well locations and general site features are shown on the attached Site Plan/Groundwater Elevation Contour Map, Plate 2. Prior to sampling, static water levels were measured and each monitoring well was checked for the presence of free product using an oil/water interface probe. No free product was reported during this monitoring event. To produce representative groundwater samples, the monitoring wells were then purged of approximately three well casing volumes using a submersible pump. In addition, the indicator parameters such as the temperature, pH, and conductivity were measured during purging and recorded on the attached Groundwater Field Sampling Forms, Appendix A. The water level in each monitoring well was then allowed to sufficiently recover prior to sampling. Groundwater samples were collected using a new disposable bailer for each well and transferred into the appropriate containers supplied by the laboratory. The domestic well at 6100 Sebastopol Road (DW-6100) was sampled through the hose bib located on top of the well casing. Water was allowed to run for approximately five minutes before samples were obtained. The domestic well located at 6140 Sebastopol Road (DW-6140) is currently non-operational and the pump was removed to allow sample collection with a disposable bailer. Groundwater removed from the monitoring wells during purging and rinse water is stored onsite in 55-gallon DOT-approved drums labeled with non-hazardous waste designations, pending disposal. The groundwater samples collected were labeled, stored on ice, and then transported under chain-of-custody documentation to Alpha Analytical Laboratories, Inc. of Ukiah, California for chemical analysis.

Water Level Measurements

Monitoring well top-of-casing (TOC) elevations, depths-to-groundwater, the calculated water level elevations, and the calculated groundwater flow direction and gradient for the September 12, 2005 sampling event are presented in Table 1. Elevations are expressed in feet relative to mean sea level (msl), depths are expressed in feet, and the gradient is expressed in feet per foot. Historical groundwater flow directions and gradient data are presented in Appendix B.

Table 1: Groundwater Flow Direction and Gradient

Sample Date	Monitoring Well ID	TOC Elevation (feet - msl)	Water Level Depth (feet)	Water Level Elevation (feet -msl)	Groundwater Flow Direction/Gradient (i)
	MW-1	70.83	4.14	66.69	
	MW-2	70.95	4.42	66.53	1
09/12/05	MW-3		removed	* ***	1
	MW-4	74.05	7.92	66.13	Southwesterly $i = 0.02$
	MW-5	74.14	7.68	66.46	1 = 0.02
	MW-6	70.16	4.19	65.97	
	MW-7	70.35	5.24	65.11	

Groundwater elevation contours based on wells MW-1, MW-2, and MW-4 through MW-7 for the September 12, 2005 sampling event are shown on Plate 2.

Laboratory Chemical Analysis

Groundwater samples collected from the monitoring and domestic wells were analyzed for total petroleum hydrocarbons (TPH) as gasoline (g) and TPH as diesel (d) using Environmental Protection Agency (EPA) Test Methods 8260 and 8015, respectively. The volatile organic compounds: benzene, toluene, ethyl benzene, and total xylenes (BTEX), the additional oxygenated fuel additives, including methyl tert- butyl ether (MtBE), and the lead scavengers were analyzed using EPA Test Method 8260B. The laboratory chemical results are presented on page 3, Table 2. TPH-g, TPH-d, BTEX, and MtBE results are expressed in units of micrograms per liter (μ g/L). The laboratory analytical reports and chain-of-custody documentation are attached in Appendix C. Historical groundwater analytical results are presented in Appendix D. Time vs. Concentration Graphs that plot concentrations of TPH-g, TPH-d, benzene, and MtBE over time for MW-1 and MtBE concentrations over time for MW-2, and MW-4 through MW-7 are presented as Appendix E.



Table 2: Groundwater Analytical Results

Sample Samp	Sample	трн- д	TPH- d	В	T	E	X	MtBE
Date	ID				μg/L			
	MW-1	1,300	230*	<6.0	<6.0	<10	<10	43
	MW-2	<500	97	<3.0	<3.0	<5.0	<5.0	19
	MW-3		<u> </u>					
	MW-4	<1000 <100 <6.0 <6.0 <10					<10	34
09/12/05	MW-5	<50	550**	<0.30	<0.30	<0.50	<0.50	17
	MW-6	<93***	<50	<0.30	<0.30	<0.50	<0.50	2.7
	MW-7	<100	<50	<0.30	<0.30	<0.50	<0.50	43 +
	DW-6100	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50
	DW-6140	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50

- < = Less than the laboratory test method detection limit.
- = 1,2-Dichloroethane detected at 7.4 μ g/L.
- * = Analysis of this sample indicates the presence of hydrocarbons lower in molecular weight than diesel.
- ** = Results in the diesel organics range are primarily due to overlap from a heavy oil range product.
- *** = The method blank contains analyte at a concentration above the MRL; sample reporting limits were raised as necessary.

Discussion

During this sampling event, TPH-g was detected in the samples collected from MW-1 at a concentration of $1,300~\mu g/L$. TPH-d was detected in the sample collected from MW-1, MW-2, and MW-5 at concentrations of $230~\mu g/L$, $97~\mu g/L$, and $550~\mu g/L$. However, the laboratory reported that the sample analysis for MW-1 indicated the presence of hydrocarbons lower in molecular weight than diesel. In addition, the laboratory reported that the sample analysis for MW-5 indicated that the results in the diesel organics range are primarily due to overlap from a heavy oil range product. MtBE was detected in monitoring wells MW-1, MW-2, MW-4, MW-5, MW-6, MW-7. The lead scavenger 1,2-dichloroethane (EDC) was detected in the samples collected from MW-7 at a concentration of $7.4~\mu g/L$. The samples collected from DW-6100 and DW-6140 are below the reported laboratory detection limits for the analyses requested.

The most recent sampling event represents one complete hydrogeologic cycle subsequent to the remedial excavation activities performed during October 2004. In general, the September 12, 2005 analytical results are generally consistent with historical contaminant trends. It appears that TPH as gasoline, TPH as diesel, and MtBE concentrations are gradually declining in well MW-1. MtBE concentrations are gradually declining in wells MW-2, MW-5, and MW-6. However, it appears that MtBE concentrations are gradually increasing in wells MW-4 and MW-7. In addition, TPH as diesel was detected for the first time in wells MW-2 and MW-5. We will need to confirm these results



during the next sampling event. It should be noted that the protective vault and cap for MW-5 were damaged during the remedial excavation activities and the well casing was partially filled with soil. Although various attempts were made to remove the material, approximately two feet of soil remains in the casing. This material is the most likely source for the recent TPH as diesel detection in well MW-5. The material will be removed before the next sampling event.

It appears that there is a potential for a secondary source to the east. We recommend that a work plan be prepared to delineate the extent of groundwater contamination by advancing soil borings along the eastern property boundary. In addition, the proposed work would also include advancing soil borings within the former excavation perimeter for the purpose of evaluating the effects to groundwater from the remedial excavation.

We are in the process of completing a feasibility study evaluating the options available to remediate MtBE found in domestic well DW-6140.

Our next sampling event is scheduled for December 2005.

We appreciate the opportunity to be of service to you and trust that this provides the information you require at this time. If you have any questions or require any additional information, please feel free to contact us at (707) 575-8622 or www.transtechconsultants.com.

Sincerely,

TRANS TECH CONSULTANTS

Brian R. Hasik Staff Geologist Bill C. Wiggins, P.E. Registered Civil Engineer Exp. 12-31-08

QMR_1301_01_1005

Attachments:

Plate 1, Site Location Map

Plate 2, Site Plan/Groundwater Elevation Contour Map

Appendix A, Groundwater Field Sampling Forms

Appendix B, Historical Groundwater Elevation and Gradient Data

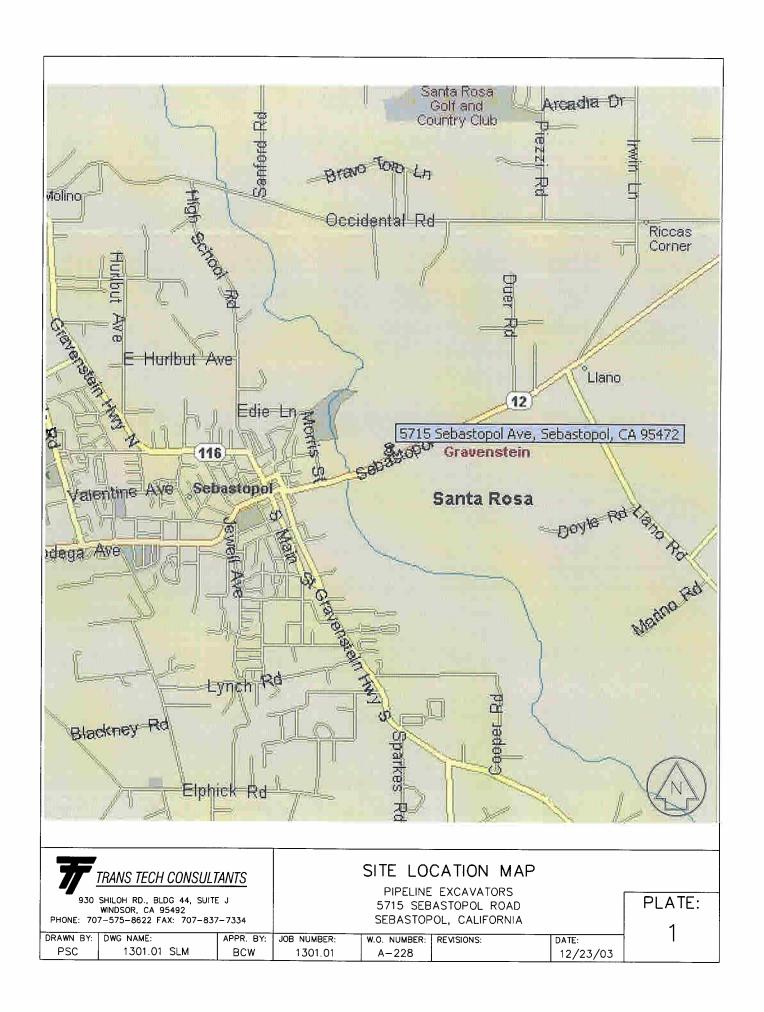
Appendix C, Alpha Analytical Laboratory Report dated September 27, 2005

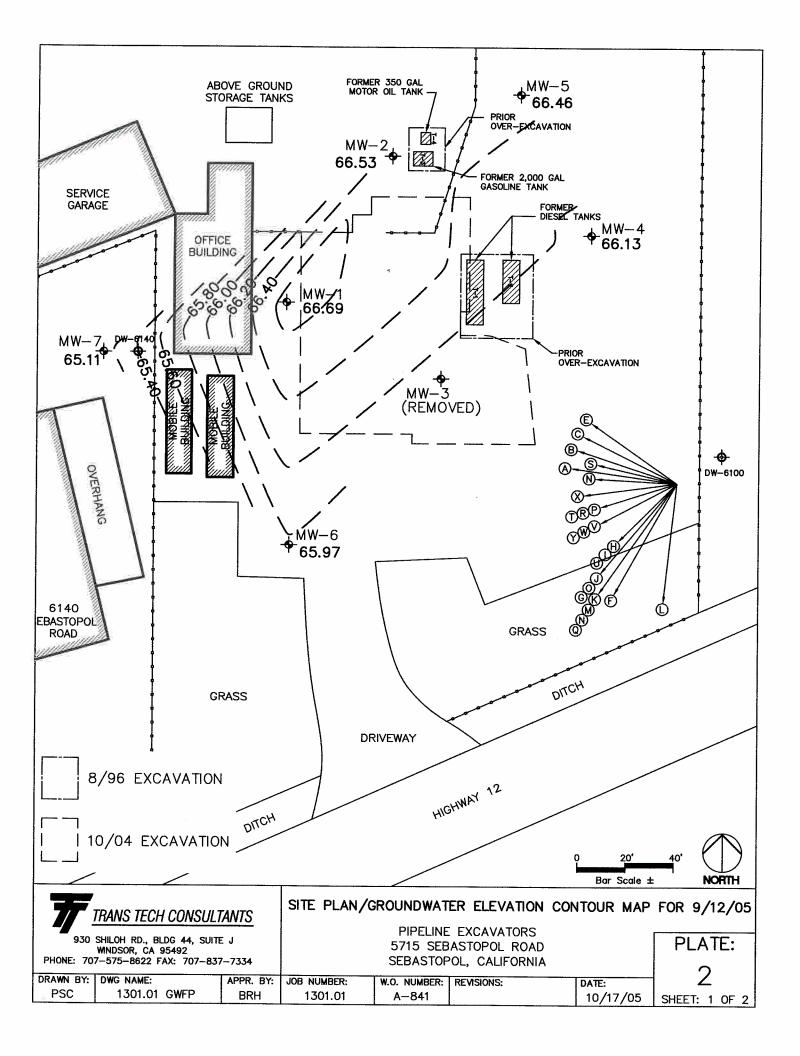
Appendix D, Historical Groundwater Analytical Results

Appendix E, Time vs. Concentration Graphs for MW-1, MW-2, MW-4 through MW-7

Distribution List







GROUNDWATER FLOW LEGEND

Estimate Flow Dir	ed Groundwo ection	(Intervo	t Contour I = 0.2 ft)	Identifier Tag	Date	Est. Flow Direction	Gradient Slope
		(A) ————————————————————————————————————					
ldentifier Tag	Date	Est. Flow Direction	Gradient Slope				
<u>(A)</u>	6/06/01	N82E	l=0.023				
B	7/23/01	N73℃	I=0.013				
0	8/29/01	N65°E	I=0.01				
(D)	9/13/01	NA	NA				
E	10/24/01	N58E	l=0.01				
F	12/13/01	S30°W	l=0.002				
<u> </u>	1/23/01	S40'W	I=0.004				
Θ	2/21/02	S45*W	1=0.006				
1	3/13/02	S45*W	I=0.006				
<u> </u>	4/24/02	S40W	I=0.005				
(K)	5/20/02	S35*W	I=0.007				
(L)	7/16/02	SOUTHERLY	1=0.008				
M	9/06/02	S35*W	I=0.005				
<u>N</u>	12/18/02	w/sw	I=VARIES				
0	3/19/03	SOUTHWEST	I=0.01				
P	7/09/03	WESTERLY	l=0.004				
<u>@</u>	9/16/03	W/SW	I=VARIES				
R	12/02/03	WESTERLY	l=0.03				
S	3/31/04	SW/NW	I=0.02				
T	6/08/04	SOUTHWESTERLY	i=0.014				
0	9/07/04	S45 ™	l=0.005				
(S)	12/09/04	SOUTHWESTERLY	I=0.007				
(W)	3/31/05	SOUTHWESTERLY	I=0.008				
\otimes	6/27/05	SOUTHWESTERLY	l=0.02				
(9)	9/12/05	SOUTHWESTERLY	I=0.02				
			**				

MW-1 Monitoring Well Location [XX.XX] Groundwater Elevation

NOTE: Ground water elevations are in feet above mean sea level (National Geodetic Vertical Datum, 1929).

◆

Domestic Well

Excavation Limits

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930 SHILOH RD., BLDG 44, SUITE J WINDSOR, CA 95492 PHONE: 707-575-8622 FAX: 707-837-7334 SITE PLAN/GROUNDWATER ELEVATION CONTOUR MAP FOR 9/12/05

PIPELINE EXCAVATORS 5715 SEBASTOPOL ROAD SEBASTOPOL, CALIFORNIA

PLATE:

2

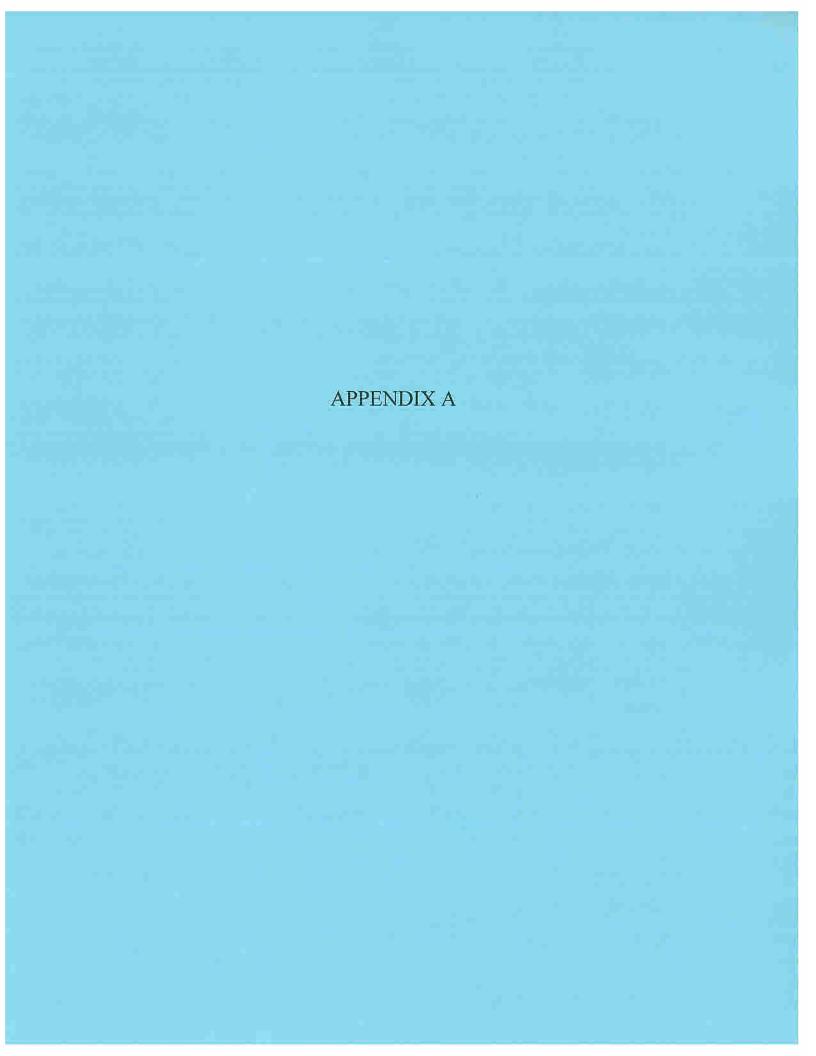
DRAWN BY: DWG NAME: APPR. BY:
PSC 1301.01 GWFP BRH

JOB NUMBER: 1301.01

W.O. NUMBER: REVISIONS: A-841

ONS: DATE: 10/17/05

SHEET: 2 OF 2



			WELL INFOR	MATION		III III III	
Project Number/Na	ame:	1301.01 Pipeline Exca	avators		Well Number	MW-1	
Project Location:	5715 Sebasto Sebastopol, C		Casing Diameter: 2"		Well Depth from TOC (BP): 8 . 15 Well Depth from TOC (AP):		
Date: September	12, 2005		Top of Screen:		Initial Well I	Depth:	
Sampled by (print a	and sign): Bria	n Hasik	Product Thickne	ess in inches: 🔯			
4	24)		Water Level fro	m TOC: 4/	4	Time: 💋	122
Notes: H C ODOR			Water Level pre	-purge: 4/	1	Time: 🕻 🏃	20
\$13V	02.50		Well Type: 🕬	Aonitor □ Ext	raction	er:	
9		k 	Well EL (TOC):		W	ell Mat: PVC	
			WEATH	ER			
Wind: Yes / No Clouds: Yes / No Sun: Yes / No Precipitation in last 5 days: Yes / No Yes / No						es No	
	vo	LUME OF WA	TER TO BE REM	OVER BEFOR	E SAMPLING		
	TD - WL Dia. Inches gallons in one well volume						
(= 9 ;	gallons i	n 3 well volume	es (Approx. 0.6 gal/	(ft) 2.5	total gall	ons purged	
		FIELD M	EASUREMENTS	DURING PUR	GING		
Stable Fie	ld Parameters	Required Prior	to Sample Collecti	on <10% pH a	nd EC change, <	0.2°C temp. cha	nge
Time	Gallons	рН	TEMP °C	ORP	DO mg/L	EC mS/μS	Turbidity H/M/L
1-21	1	6.62	24-8	- 30		2169	_
622	2	6.59	24.2	-56		2579	4
1-22	25	6.55	23.9	-48		1891	
. <u> </u>							
- ,- ,- ,- ,- ,- ,- ,- ,- ,- ,- ,- ,- ,-							
Minimum o	f 5 gallons or 0	.6 gal/ft. Of wat	ter in casing - whic	hever is greater	and field param	eters must be st	able.
Water Level Before		15			Time: 2 = 2	1 1	
Appearance of Samp	ole:						
Bailer: Disposable	Pur	np: 12V Subme	ersible (1-2 gpm)				
DECON. METHOD	: TSP or Liqui	inox (phosphate	free) Wash / Dou	ble Rinse			
NUMBER OF DRU	MS GENERAT	ED: Water:	2/i) Soil:	Ŭ Ot	her:		

DRUM OK

			WELL INFORM	MATION			
Project Number/Na	me:	1301.01 Pipeline Exca	vators	45.	Well Number	: MW-2	
Project Location:	5715 Sebasto Sebastopol,		Casing Diameter: 2"		Well Depth from TOC (BP): 중 · 연역 Well Depth from TOC (AP):		
Date: September	12, 2005		Top of Screen:		Initial Well I	Depth:	
Sampled by (print a	nd sign): Bria	n Hasik	Product Thickne	ss in inches: 🌂			
(6	BRIN		Water Level from	n TOC: 1.4	2	Time: 💋 🖠	14
Notes:			Water Level pre-	purge: 4. 4	2	Time: 🛵 🗦	35
			Well Type: 🖎 M	lonitor 🗆 Ext	raction Other	er:	
			Well EL (TOC):		W	ell Mat: PVC	···
			WEATHI	R			
Wind: Yes/No Rain: Yes/No	Cloud Fog:	ls: Yes No Yes No	Sun	Yes/ No	Precipitation i	n last 5 days: Y	es No
	V	DLUME OF WA	TER TO BE REM	OVER BEFOR	E SAMPLING		
TD - WL Dia. Inches gallons in one well volume							
1. 76	gallons	in 3 well volume	s (Approx. 0.6 gal/i	it)	total gall	ons purged	
		FIELD M	EASUREMENTS I	DURING PUR	GING		
Stable Field	d Parameters	Required Prior	to Sample Collection	on <10% pH a	nd EC change, <	0.2°C temp. chan	ige
Time	Gallons	рН	TEMP °C	ORP	DO mg/L	EC mS/μS	Turbidity H/M/L
12:40	1	6.55	25.0	142		2729	L
12:42	2	6-61	24.2	132		2730	1
12-43	3	6-63	24.	123		2728	١٦
12:44	A	0-68	24.2	MB		2720	
17-45	5	6.68	24-1	117		2722	1
	<u>.</u>						
	4		er in casing - whicl	ever is greater	and field paran	neters must be sta	ble.
Water Level Before S	Sampling: 4	.45			Time: 2200	7	
Appearance of Samp	le:	-					
Bailer: Disposable	Pu	mp: 12V Subme	ersible (1-2 gpm)				
DECON. METHOD:	TSP or Liqu	inox (phosphate	free) Wash / Doul	ole Rinse			
NUMBER OF DRUM	AS GENERA	TED: Water:	$\frac{2(1)}{2}$ Soil:	O t	her: 💘		

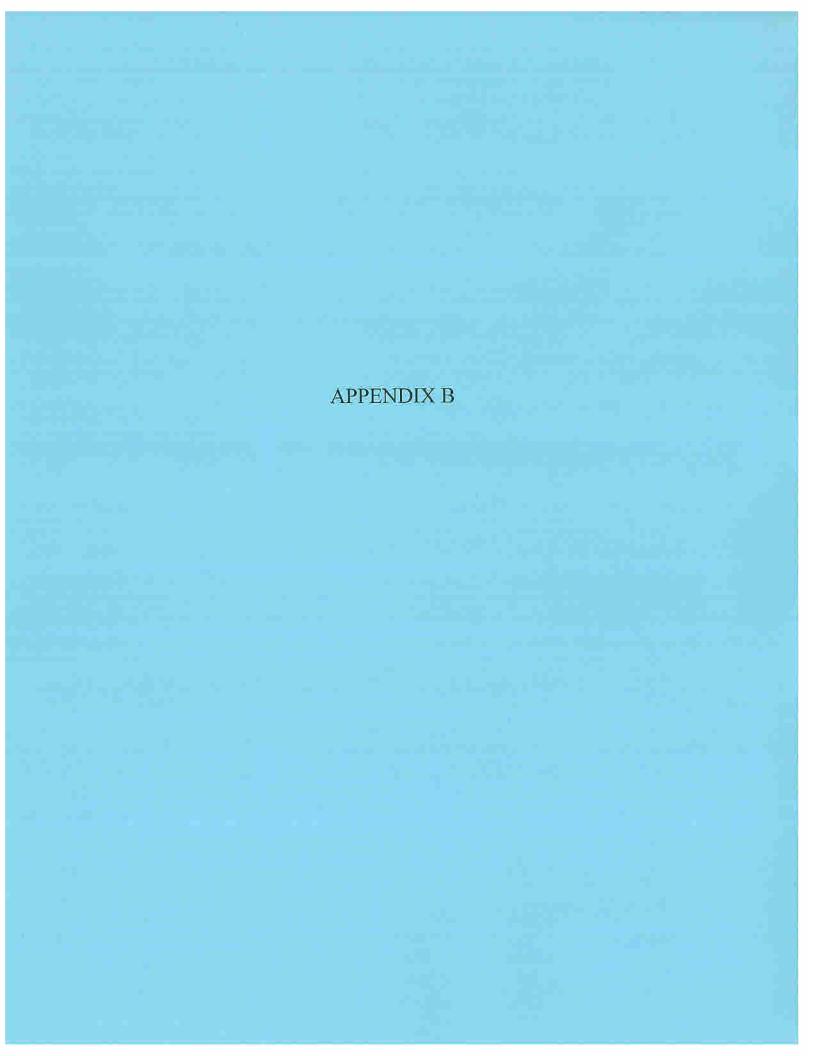
			WELL INFORM	MATION			
Project Number/Na	me:	1301.01 Pipeline Exca	vators		Well Number	: MW-4	4
Project Location:	5715 Sebasto Sebastopol, C		Casing Diameter: 2"		Well Depth from TOC (BP): /0.40 Well Depth from TOC (AP):		
Date: September	12, 2005		Top of Screen:		Initial Well I	Depth:	
Sampled by (print a	nd sign): Briaı	ı Hasik	Product Thickne	ss in inches: 👌	7		
	BOD		Water Level from	n TOC: 🤰 .	92	Time: 💋	21
Notes: Day	JUST Let	ne Ba	Water Level pre-	purge: 7	92	Time:	03
0 1	3	~)	Well Type:	lonitor 🗆 Ext	raction Oth	er:	
			Well EL (TOC):		W	ell Mat: PVC	
ود و با النساطيورات			WEATH	CR			
Wind: Yes No Clouds: Yes No Sun: Yes No Precipitation in last 5 days: Yes No Rain: Yes No Fog: Yes / No							
	vo	LUME OF WA	TER TO BE REM	OVER BEFOR	E SAMPLING		
	X ()2 X (Dia. Inches	0.0408 = 10 -4	gallons in	ı one well volum	ie	
1-20	gallons i	n 3 well volume	es (Approx. 0.6 gal/i	-3	total gal	lons purged	
			EASUREMENTS				
Stable Fiel	d Parameters		to Sample Collecti			<0.2°C temp. cha	nge
Time	Gallons	рН	TEMP °C	ORP	DO mg/L	EC mS/μS	Turbidity H/M/L
1 - 0.5	Å,	6-68	22-4	M		1855	1_
[-06	2	6-79	22-4	96		18 30	L
1-07	- 3	6-72	22-5	86		18/39	U
_							
Minimum o	f 5 gallons or 0	.6 gal/ft. Of wa	ter in casing - whic	hever is greate	and field parar	neters must be st	able.
Water Level Before		.95			Time: 2 2/5		
Appearance of Samp						-	
Bailer: Disposable		np: 12V Subm	ersible (1-2 gpm)				
DECON. METHOD	: TSP or Liqu	inox (phosphat	e free) Wash / Dou	ble Rinse			
	MS GENERAT	ΓED: Water:	2 (1) Soil:	0	ther:		

	WELL INFORM	IATION			
Project Number/Name: 1301.01 Pipeline Exca	ıvators		Well Number:	MW-5	
Project Location: 5715 Sebastopol Road Sebastopol, California	Casing Diameter: 2"		Well Depth fro	om TOC (BP): 6 om TOC (AP):	350 2
Date: September 12, 2005	Top of Screen:		Initial Well D	epth:	
Sampled by (print and sign): Brian Hasik	Product Thicknes	s in inches: 🦹			
FOR	Water Level from	TOC: 🤼	8	Time: 1	: 10
Notes: Could Not use pump	Water Level pre-	purge: 7	68	Time: /2	
Notes: Could Not use pump Punged of bailer = 1/89	Well Type: 🖹 M			r:	
ontil day	Well EL (TOC):	· · · · · · · · · · · · · · · · · · ·	We	ll Mat: PVC	
	WEATHE	R			
Wind: Yes/No Clouds: Yes/No Rain: Yes/No Fog: Yes/No	Sun:	Yes / No	Precipitation in	last 5 days: Y	es /No
VOLUME OF WA	TER TO BE REMO	OVER BEFOR	E SAMPLING		
TD WL Dia. Inches gallons in 3 well volume		T. I.	one well volume		
	EASUREMENTS I				
Stable Field Parameters Required Prior	to Sample Collectio	n <10% pH a	nd EC change, <	0.2°C temp. cha	nge
Time Gallons pH	TEMP 90	ORP	DO mg/L	EC mS/μS	Turbidity H/M/L
A	/A				
Minimum of 5 gallons or 0.6 gal/ft. Of wat	ter in casing - which	ever is greater	and field param	eters must be st	able.
Water Level Before Sampling: 7.63			Time: 1.4.7		
1 8		<u> </u>	- INS	-	
Appearance of Sample: /- 5-					
1, (1	ersible (1-2 gpm)				
Appearance of Sample: 1-514		le Rinse			,

			WELL INFOR	MATION				
Project Number/Na	me:	1301.01 Pipeline Exca	vators		Well Number	: MW-6		
Project Location:	5715 Sebasto Sebastopol, C		Casing Diameter: 2"		Well Depth from TOC (BP): 10 Well Depth from TOC (AP):			
Date: September	12, 2005		Top of Screen:		Initial Well I	Depth:		
Sampled by (print a	nd sign): Briaı	n Hasik	Product Thickne	ess in inches	***			
	CID		Water Level from	m TOC: 📆	9	Time: //	:22	
Notes:	2 3a		Water Level pre	-purge: 4	19	Time: 1	1.61	
_ 0 -	الب	i	Well Type: □ N	Ionitor \(\subseteq \text{Ext}	raction	er:		
			Well EL (TOC):		Wo	ell Mat: PVC		
			WEATH	ER				
Wind: Yes No Rain: Yes No								
VOLUME OF WATER TO BE REMOVER BEFORE SAMPLING								
	(
2-36	gallons i	n 3 well volume	s (Approx. 0.6 gal/	$f(t) \stackrel{?}{\sim} 3$	total gall	ons purged		
	,		EASUREMENTS					
Stable Fiel	d Parameters	Required Prior	to Sample Collecti	on <10% pH a	nd EC change, <	0.2°C temp. cha	nge	
Time	Gallons	pН	TEMP °C	ORP	DO mg/L	EC mS / μS	Turbidity H/M/L	
1:12		6.56	25.9	57		2068	C	
1:13	2	6.52	25.6	60		2720	L	
1-14	3	6-53	25.1	62		3391	L	
			<u> </u>					
					AM.			

		.6 gal/ft. Of wat	er in casing - whic	hever is greater			ıble.	
Water Level Before		1-23			Time: 2.	75		
Appearance of Samp								
Bailer: Disposable			ersible (1-2 gpm)					
DECON. METHOD:			free) Wash / Dou	ble Rinse				
NUMBER OF DRUM	MS GENERAT	ED: Water:	2(¹) Soil:	Ot	her:			

			WELL INFOR	MATION			
Project Number/Na	ame:	1301.01 Pipeline Exca	ivators	-11	Well Number	: MW-7	
Project Location:	5715 Sebasto Sebastopol, (Casing Diameter: 2"			om TOC (BP): om TOC (AP):	9.90
Date: September	12, 2005		Top of Screen:		Initial Well 1	Depth:	
Sampled by (print a	and sign): Bria	n Hasik	Product Thickne	ess in inches:			
	EGD		Water Level from	m TOC: 🐔	24	Time: 12	19
Notes:	2.5		Water Level pre	-purge: 💍	24	Time: 1)	: 57
. 00			Well Type:	Ionitor DEx	traction	er:	
	·		Well EL (TOC):		W	ell Mat: PVC	
			WEATH	ER			
Wind: Yes No Rain: Yes No	Cloud Fog:	s: Yes /No Yes /No	Sun	Yes / No	Precipitation i	in last 5 days: Y	es No
	VO	LUME OF WA	TER TO BE REM	OVER BEFOR	RE SAMPLING		
TD WL Dia. Inches 2-24 gallons in 3 well volumes (Approx. 0.6 gal/ft) FIELD MEASUREMENTS DURING PURGING							
	T		to Sample Collecti			1	
Time	Gallons	pН	TEMP °C	ORP	DO mg/L	EC mS/μS	Turbidity H/M/L
12:52	1	6.27	22.7	175		1768	L
12:53	2	6.28	224	173		1864	1
12:54	2.5	6-26	22.2	170		1903	4
							3
Minimum o	of 5 gallons or 0	.6 gal/ft. Of wat	er in casing - whic	hever is greate	r and field paran	neters must be st	able.
Water Level Before		.24			Time: 2200		
Appearance of Samp	ple:			10			
Bailer: Disposable	Pur	np: 12V Subme	ersible (1-2 gpm)	÷ Egy Thy T			
DECON. METHOD	: TSP or Liqu	inox (phosphate	free) Wash / Dou	ble Rinse			
NUMBER OF DRU	MS GENERAT	ΓED: Water:	2(l) Soil:	o	ther:		



Appendix B: Historical Groundwater Elevation and Gradient Data <u>Pipeline Excavators</u>

Sample Date	Monitoring Well ID	TOC Elevation (feet - msl)	Water Level Depth (feet)	Water Level Elevation (feet -msl)	Groundwater Flow Direction/Gradient (i)	
	MW-1	68.71	3.03	65.68		
06/06/01	MW-2	68.15	3.06	65.09	N 82° E i = 0.023	
	MW-3	68.92	3.85	65.07		
	MW-1	68.71	4.22	64.49		
07/23/01	MW-2	68.15	4.35	63.80	N73°E i = 0.013	
	MW-3	68.92	5.12	63.80		
	MW-1	68.71	5.03	63.68		
08/29/01	MW-2	68.15	5.06	63.09	$N65^{\circ}E$ i = 0.01	
	MW-3	68.92	5.72	63.20		
	MW-1	68.71	5.21	63.50	NA	
09/13/01	MW-2	68.15	NA	NA		
	MW-3	68.92	5.90	63.02		
	MW-1	68.71	5.55	63.16	.1390.70	
10/24/01	MW-2	68.15	5.61	62.54	N58°E i = 0.01	
	MW-3	68.92	6.16	62.76		
	MW-1	68.81	2.76	66.05		
12/13/01	MW-2	68.93	2.54	66.39	$S30^{\circ}W$ i = 0.002	
	MW-3	69.31	3.18	66.13	1 – 0.002	
	MW-1	68.81	2.24	66.57		
1/23/01	MW-2	68.93	2.22	66.71	$S40^{\circ}W$ i = 0.004	
	MW-3	69.31	2.76	66.55	1 – 0.004	

Sample Date	Monitoring Well ID	TOC Elevation (feet - msl)	Water Level Depth (feet)	Water Level Elevation (feet -msl)	Groundwater Flow Direction/Gradient (i)
	MW-1	68.81	1.24	67.57	
	MW-2	68.93	1.16	67.77	
	MW-3	69.31	1.75	67.56	
2/21/02	MW-4	72.04	4.09	67.95	S45°W i = 0.006
	MW-5	72.14	3.95	68.19	1 = 0.000
	MW-6	68.16	1.05	67.11	
	MW-7	68.37	2.13	66.24	
	MW-1	68.81	1.13	67.68	
	MW-2	68.93	1.18	67.75	
	MW-3	69.31	1.62	67.69	
	MW-4	72.04	4.03	68.01	S45°W i = 0.006
03/13/02	MW-5	72.14	3.93	68.21	1 – 0.000
	MW-6	68.16	0.96	67.20	
	MW-7	68.37	2.14	66.23	
	MW-1	68.81	2.43	66.38	
	MW-2	68.93	2.46	66.47	
	MW-3	69.31	3.09	66.22	
04/24/02	MW-4	72.04	5.73	66.31	$S40^{\circ}W$ i = 0.005
	MW-5	72.14	5.50	66.64	1 = 0.005
	MW-6	68.16	2.31	65.85	
	MW-7	68.37	2.92	65.40	

Sample Date	Monitoring Well ID	TOC Elevation (feet - msl)	Water Level Depth (feet)	Water Level Elevation (feet -msl)	Groundwater Flow Direction/Gradient (i)		
	MW-1	68.81	2.71	66.10			
	MW-2	68.93	3.61	65.32			
	MW-3	69.31	3.41	65.90			
05/20/02	MW-4	72.04	6.05	65.99	S35°W i = 0.007		
MW-5	MW-5	72.14	5.82	66.32	1 = 0.007		
	MW-6	68.16	2.69	65.47			
	MW-7_	68.37	3.34	65.03			
	MW-1	68.81	3.65	65.16			
	MW-2	68.93	3.67	65.26			
	MW-3	69.31	4.42	64.89			
07/16/02	MW-4	72.04	7.11	64.93	Southerly i = 0.007		
	MW-5	72.14	6.86	65.28	1 = 0.007		
	MW-6	68.16	3.72	64.44			
	MW-7	68.37	4.34	64.03			
	MW-1	68.81	4.36	64.45			
	MW-2	68.93	4.45	64.48			
	MW-3	69.31	4.98	64.33			
09/06/02	MW-4	72.04	7.78	64.26	$S35^{\circ}W$ i = 0.005		
r	MW-5	72.14	7.60	64.54	1 – 0,003		
	MW-6	68.16	3.97	64.19			
	MW-7	68.37	5.52	62.85			

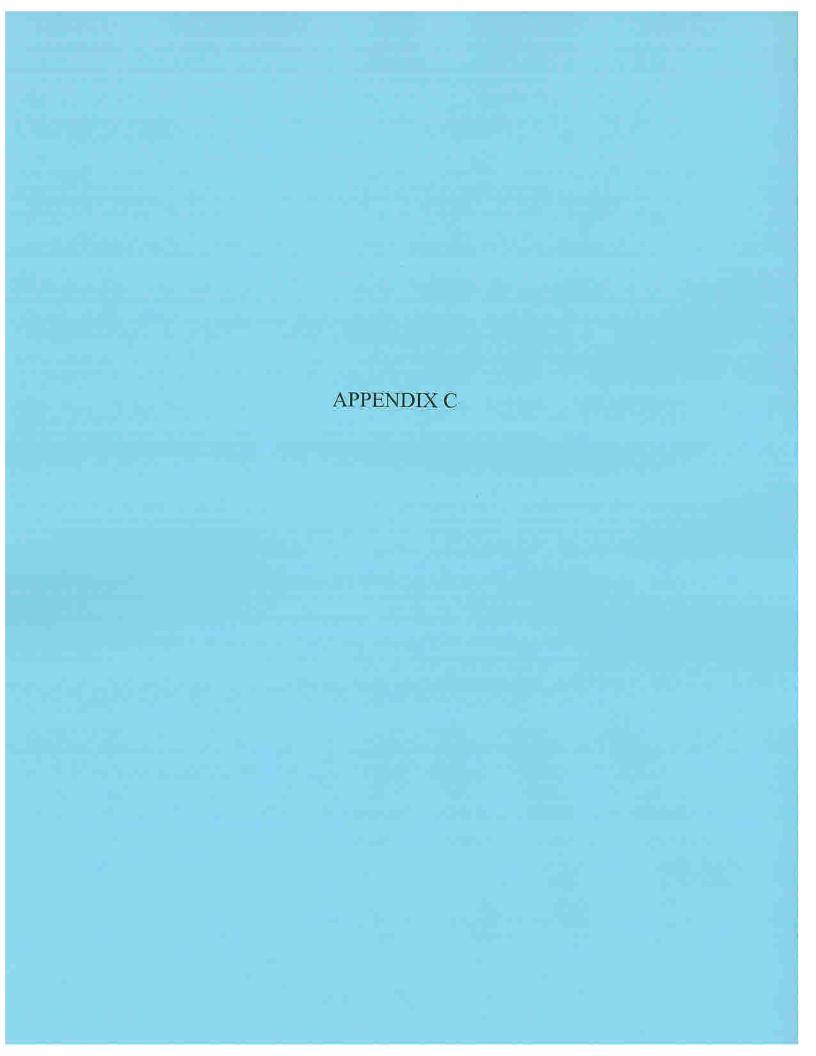
Sample Date	Monitoring Well ID	TOC Elevation (feet - msl)	Water Level Depth (feet)	Water Level Elevation (feet -msl)	Groundwater Flow Direction/Gradient (i)			
	MW-1	68.81	2.78	66.03				
	MW-2	68.93	2.56	66.37				
	MW-3	69.31	3.13	66.18				
12/18/02 MW-4 MW-5	72.04	5.31	66.73	West / Southwest i = varies				
	72.14	5.24	66.90	i – varies				
	MW-6	68.16	2.11	66.05				
	MW-7	68.37	4.18	64.19				
	MW-1	68.81	1.14	67.67				
	MW-2	68.93	1.16	67.77				
	MW-3	69.31	1.69	67.62				
03/19/03	MW-4	72.04	4.11	67.93	Southwest $i = 0.01$			
MW-5 MW-6	MW-5	72.14	3.97	68.17	1 – 0.01			
	MW-6	68.16	1.06	67.10				
	MW-7	68.37	2.02	66.35				

Sample Date	Monitoring Well ID	TOC Elevation (feet - msl)	Water Level Depth (feet)	Water Level Elevation (feet -msl)	Groundwater Flow Direction/Gradient (i)		
	MW-1	68.81	3.23	65.58			
	MW-2	68.93	3.24	65.69			
	MW-3	69.31	4.03	65.28			
07/09/03	MW-4	72.04	6.71	65.33	Westerly $i = 0.004$		
MW-5	MW-5	72.14	6.45	65.69	1 = 0.004		
	MW-6	68.16	3.15	65.01			
	MW-7	68.37	3.77	64.60			
	MW-1	68.81	4.24	64.57			
	MW-2	68.93	4.43	64.50			
	MW-3	69.31	5.02	64.29	West/Southwest i = varies		
09/16/03	MW-4	72.04	7.76	64.28			
	MW-5	72.14	7.52	64.62			
	MW-6	68.16	4.16	64.00			
	MW-7	68.37	5.13	63.24			
	MW-1	68.81	3.61	65.20			
	MW-2	68.93	3.40	65.53			
	MW-3	69.31	4.12	65.19			
12/02/03 MW-4 MW-5	MW-4	72.04	6.42	65.62	Westerly $i = 0.04$		
	MW-5	72.14	6.25	65.89	1 – 0.04		
[MW-6	68.16	3.01	65.15			
	MW-7	68.37	5.06	63.31			

Sample Date	Monitoring Well ID	TOC Elevation (feet - msl)	Water Level Depth (feet)	Water Level Elevation (feet -msl)	Groundwater Flow Direction/Gradient, i (feet/foot)			
	MW-1	70.83	1.40	69.43				
	MW-2	70.95	1.47	69.48	1			
	MW-3	71.32	2.00	69.32	Southwest			
3/31/04*	MW-4	74.05	4.49	69.56	to Northwest			
MW-5	MW-5	74.14	4.30	69.84	i = 0.02			
	MW-6	70.16	0.45	69.71	1			
	MW-7	70.35	2.24	68.11				
* = wells were re	e-surveyed on Feb	ruary 24, 2004						
	MW-1	70.83	3.50	67.33				
	MW-2	70.95	3.53	67.42				
	MW-3	71.32	4.28	67.04				
6/08/04	MW-4	74.05	7.03	67.02	Southwesterly i = 0.014			
	MW-5	74.14	6.75	67.39	1 - 0.014			
	MW-6	70.16	3.40	66.76	1			
	MW-7	70.35	4.13	66.22				
	MW-1	70.83	5.22	65.61				
	MW-2	70.95	5.32	65.63	1			
	MW-3	71.32	5.96	65.36	1			
9/07/04	MW-4	74.05	8.71	65.34	S45°W i = 0.005			
	MW-5	74.14	8.55	65.59	1 = 0.003			
	MW-6	70.16	5.01	65.15	1			
	MW-7	70.35	6.22	65.13	1			

Sample Date	Monitoring Well ID	TOC Elevation (feet - msl)	Water Level Depth (feet)	Water Level Elevation (feet -msl)	Groundwater Flow Direction/Gradient, i (feet/foot)		
	MW-1	70.83	4.20	66.63			
	MW-2	70.95	3.77	67.18	j		
<u> </u>	MW-3		removed		1		
12/09/04	MW-4	74.05	6.54	67.51	Southwesterly i = 0.007		
MW-5	74.14	NA	NA	1 = 0.007			
	70.16	3.60	66.56	_			
	MW-7	70.35	NA	NA			
	MW-1	70.83	1.27	69.56			
	MW-2	70.95	1.35	69.60			
	MW-3]				
03/31/05	MW-4	74.05	4.00	70.05	Southwesterly i = 0.008		
	MW-5	74.14	3.95	70.19	1 = 0.008		
	MW-6	70.16	1.05	69.11	1		
	MW-7	70.35	2.15	68.20			
	MW-1	70.83	2.59	68.24			
	MW-2	70.95	2.72	68.23	1		
	MW-3		removed		[
	MW-4	74.05	6.23	67.82	Southwesterly		
	MW-5	74.14	5.95	68.19	i = 0.02		
	MW-6	70.16	2.32	67.84			
	MW-7	70.35	3.45	66.90			

Sample Date	Monitoring Well ID	TOC Elevation (feet - msl)	Water Level Depth (feet)	Water Level Elevation (feet -msl)	Groundwater Flow Direction/Gradient (i)
	MW-1	70.83	4.14	66.69	
	MW-2	70.95	4.42	66.53	
09/12/05	MW-3		removed		
	MW-4	74.05	7.92	66.13	Southwesterly
	MW-5	74.14	7.68	66.46	i = 0.02
	MW-6	70.16	4.19	65.97	
	MW-7	70.35	5.24	65.11	





Alpha Analytical Laboratories Inc.

208 Mason St. Ukiah, California 95482

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27 September 2005

Trans Tech Consultants

Attn: Bill Wiggins

930 Shiloh Rd., Bldg.44, Suite J

Windsor, CA 95492

RE: Leland Smith/Pipeline Excavators

Work Order: A509330

Enclosed are the results of analyses for samples received by the laboratory on 09/13/05 15:25. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Nena M. Burgess For Sheri L. Speaks

Project Manager



Alpha Analytical Laboratories inc.

208 Mason St. Ukiah, California 95482

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CHEMICAL EXAMINATION REPORT

Page 1 of 15

Trans Tech Consultants

930 Shiloh Rd., Bldg.44, Suite J

Windsor, CA 95492 Attn: Bill Wiggins

Report Date: 09/27/05 14:54

Project No: 1301.01

Project ID: Leland Smith/Pipeline Excavators

Order Number

Receipt Date/Time

Client Code TRANSTEC

ANALYTICAL REPORT FOR SAMPLES

Client PO/Reference

A509330

09/13/2005 15:25

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	A509330-01	Water	09/12/05 14:30	09/13/05 15:25
MW-2	A509330-02	Water	09/12/05 14:00	09/13/05 15:25
MW-4	A509330-03	Water	09/12/05 14:15	09/13/05 15:25
MW-5	A509330-04	Water	09/12/05 13:45	09/13/05 15:25
MW-6	A509330-05	Water	09/12/05 14:25	09/13/05 15:25
MW-7	A509330-06	Water	09/12/05 14:05	09/13/05 15:25
DW-6100	A509330-07	Water	09/12/05 11:40	09/13/05 15:25
DW-6140	A509330-08	Water	09/12/05 12:00	09/13/05 15:25



Alpha Analytical Laboratories Inc.

208 Mason St. Ukiah, California 95482

Report Date: 09/27/05 14:54

Project No: 1301.01

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CHEMICAL EXAMINATION REPORT

Page 2 of 15

Trans Tech Consultants

930 Shiloh Rd., Bldg.44, Suite J

Windsor, CA 95492 Attn: Bill Wiggins

Order Number

A509330

Receipt Date/Time

09/13/2005 15:25

Client Code TRANSTEC

Project ID: Leland Smith/Pipeline Excavators

Client PO/Reference

Alpha Analytical Laboratories, Inc.

BATCH PREPARED ANALYZED DILUTION **METHOD** RESULT PQL NOTE MW-1 (A509330-01) Sample Type: Water Sampled: 09/12/05 14:30 TPH by EPA/LUFT GC/GCMS Methods TPH as Diesel 8015DRO AI52607 09/26/05 09/26/05 0.9302 230 ug/l D-07 47 TPH as Gasoline 8260GRO AI52625 09/21/05 09/23/05 20 1300 " 1000 Surrogate: Tetratetracontane 8015DRO AI52607 09/26/05 09/26/05 84.0 % 20-152 Surrogate: Toluene-d8 8260GRO AI52625 09/21/05 09/23/05 113% 86-141 Volatile Organic Compounds by EPA Method 8260B R-04 Benzene EPA 8260B AI52702 09/21/05 09/23/05 20 ND ug/l 6.0 Toluene ND" 6.0 Ethylbenzene ND" 10 Xylenes (total) ND" 10 Methyl tert-butyl ether 43 " 10 Di-isopropyl ether ND" 10 Ethyl tert-butyl ether ND" 10 Tert-amyl methyl ether ND " 10 Tert-butyl alcohol ND" 200 1,2-Dichloroethane ND" 10 Chlorobenzene ND " 10 1,3-Dichlorobenzene ND " 10 1,4-Dichlorobenzene ND" 10 1,2-Dichlorobenzene ND" 10 1,2-Dibromoethane (EDB) ND" 10 Surrogate: Bromofluorobenzene 102 % 78-138 Surrogate: Dibromofluoromethane 91.4% 71-136 Surrogate: Toluene-d8 113 % 88-139

MW-2 (A509330-02)

TPH by EPA/LUFT GC/GCMS Methods TPH as Diesel 0.9302 8015DRO AI52607 09/26/05 09/26/05 47 97 ug/l TPH as Gasoline 8260GRO AI52625 09/21/05 09/23/05 10 ND" 500 R-04 Surrogate: Tetratetracontane 8015DRO AI52607 09/26/05 09/26/05 142 % 20-152 Surrogate: Toluene-d8 8260GRO AI52625 09/21/05 09/23/05 R-04 111% 86-141

Sample Type: Water

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Sampled: 09/12/05 14:00



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CHEMICAL EXAMINATION REPORT

Page 3 of 15

Trans Tech Consultants

930 Shiloh Rd., Bldg.44, Suite J

Windsor, CA 95492 Attn: Bill Wiggins

Report Date: 09/27/05 14:54

Project No: 1301.01

Project ID: Leland Smith/Pipeline Excavators

Order Number

Receipt Date/Time

Client Code

Client PO/Reference

A509330

09/13/2005 15:25

TRANSTEC

Alpha Analytical Laboratories, Inc. BATCH PREPARED ANALYZED DILUTION **METHOD** RESULT PQL NOTE MW-2 (A509330-02) Sample Type: Water Sampled: 09/12/05 14:00 Volatile Organic Compounds by EPA Method 8260B R-04 Benzene EPA 8260B AI52702 09/21/05 09/23/05 10 ND ug/l 3.0 Toluene ND" 3.0 Ethylbenzene ND" 5.0 Xylenes (total) ND" 5.0 Methyl tert-butyl ether 19 " 5.0 Di-isopropyl ether ND" 5.0 Ethyl tert-butyl ether ND" 5.0 Tert-amyl methyl ether ND" 5.0 Tert-butyl alcohol ND" 100 1,2-Dichloroethane ND" 5.0 Chlorobenzene ND" 5.0 1,3-Dichlorobenzene ND" 5.0 1,4-Dichlorobenzene ND" 5.0 1,2-Dichlorobenzene ND" 5.0 1,2-Dibromoethane (EDB) ND" 5.0 Surrogate: Bromofluorobenzene 102 % 78-138 Surrogate: Dibromofluoromethane 94.0 % 71-136 Surrogate: Toluene-d8 111% 88-139 MW-4 (A509330-03) Sample Type: Water Sampled: 09/12/05 14:15

TP

TPH by EPA/LUFT GC/GCMS Meth	ods							
TPH as Diesel	8015DRO	AI52607	09/26/05	09/26/05	1	ND ug/i	100	
TPH as Gasoline	8260GRO	AI52625	09/21/05	09/23/05	20	ND "	1000	R-04
Surrogate: Tetratetracontane	8015DRO	AI52607	09/26/05	09/26/05		100 %	20-152	
Surrogate: Toluene-d8	8260GRO	AI52625	09/21/05	09/23/05		110 %	86-141	R-04



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CHEMICAL EXAMINATION REPORT

Page 4 of 15

Trans Tech Consultants

930 Shiloh Rd., Bldg.44, Suite J

Windsor, CA 95492 Attn: Bill Wiggins

Report Date: 09/27/05 14:54

Project No: 1301.01

Project ID: Leland Smith/Pipeline Excavators

Receipt Date/Time

Client Code

Client PO/Reference

Orde	r N	lum	ber
A 500	323	Λ	

09/13/2005 15:25

TRANSTEC

		Alpha A	nalytical	Laborato	ries, Inc.			
	METHOD	BATCH	PREPARED	ANALYZED	DILUTION	RESULT	PQL	NOTE
MW-4 (A509330-03)		W. T. J	Sample Ty	oe: Water		Sampled: 09/12/05 14:15		
Volatile Organic Compounds by EPA	Method 8260B					•		R-04
Benzene	EPA 8260B	AI52702	09/21/05	09/23/05	20	ND ug/l	6.0	
Toluene	**	11	II.	"	"	ND "	6.0	
Ethylbenzene	11	11	н	11	**	ND "	10	
Xylenes (total)	11	H	Ħ	11	**	ND "	10	
Methyl tert-butyl ether	"	**	н	11	11 '	34 "	10	
Di-isopropyl ether		н	**	**	11	ND "	10	
Ethyl tert-butyl ether	"	H	**	"	19	ND "	10	
Tert-amyl methyl ether	н	н	**	"	10	ND "	10	
Tert-butyl alcohol	n	"	"	**	H	ND "	200	
1,2-Dichloroethane	"	n	**	n	n	ND "	10	
Chlorobenzene	**	**	"	tt	Ħ	ND "	10	
1,3-Dichlorobenzene	"	"	11	**	н	ND "	10	
1,4-Dichlorobenzene	**	"	11	u	**	ND "	10	
1,2-Dichlorobenzene	**	"	"	**	11	ND "	10	
1,2-Dibromoethane (EDB)	11	"	"	11	11	ND "	10	
Surrogate: Bromofluorobenzene	"	"	"	"		103 % 78-	·138	
Surrogate: Dibromofluoromethane	"	"	"	"		108 % 71-	136	
Surrogate: Toluene-d8	"	n	"	"		110 % 88-	-139	
MW-5 (A509330-04)			Sample Ty	pe: Water		Sampled: 09/12/05 13:45		
TPH by EPA/LUFT GC/GCMS Meth	ods							
TPH as Diesel	8015DRO	AI52607	09/26/05	09/26/05	1	550 ug/l	50	D-09
TPH as Gasoline	8260GRO	AI52625	09/21/05	09/23/05	n	ND "	50	
Surrogate: Tetratetracontane	8015DRO	AI52607	09/26/05	09/26/05		127 % 20-	-152	
Surrogate: Toluene-d8	8260GRO	AI52625	09/21/05	09/23/05		112 % 86	-141	



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CHEMICAL EXAMINATION REPORT

Page 5 of 15

Trans Tech Consultants

930 Shiloh Rd., Bldg.44, Suite J

Windsor, CA 95492 Attn: Bill Wiggins

Report Date: 09/27/05 14:54

Project No: 1301.01

Project ID: Leland Smith/Pipeline Excavators

Order Number

Receipt Date/Time

Client Code

Client PO/Reference

A509330

09/13/2005 15:25

TRANSTEC

		Alpha A	nalytical	Laborator	ries, Inc.			
	METHOD	-	•		•	RESULT	PQL	NOTE
MW-5 (A509330-04)			Sample Ty	pe: Water		Sampled: 09/12/05 13:45		
Volatile Organic Compounds by EPA	Method 8260B					-		
Benzene	EPA 8260B	AI52702	09/21/05	09/23/05	1	ND ug/l	0.30	
Toluene	**	"	II .	11	**	ND "	0.30	
Ethylbenzene	"	"	II .	11	n	ND "	0.50	
Xylenes (total)	11	**	11	u	**	ND "	0.50	
Methyl tert-butyl ether	11	11	"	19	и.	17 "	0.50	
Di-isopropyl ether	"	**	n	11	"	ND "	0.50	
Ethyl tert-butyl ether	0	11	11	н	"	ND "	0.50	
Tert-amyl methyl ether	11	11	10	n	H	ND "	0.50	
Tert-butyl alcohol	Ħ	**	n	**	n	ND "	10	
1,2-Dichloroethane	н	n	Ħ	H	**	ND "	0.50	
Chlorobenzene	n	n	н	**	n	ND "	0.50	
1,3-Dichlorobenzene	Ħ	Ħ	n	**	n	ND "	0.50	
1,4-Dichlorobenzene	н	v	H	11	"	ND "	0.50	
1,2-Dichlorobenzene	н	**	n	11	11	ND "	0.50	
1,2-Dibromoethane (EDB)	**	**	**	11	"	ND "	0.50	
Surrogate: Bromofluorobenzene	"	"	"	"		102 % 78-13	8	
Surrogate: Dibromofluoromethane	"	"	"	"		94.0 % 71-13	6	
Surrogate: Toluene-d8	"	"	"	"		112 % 88-13	9	
MW-6 (A509330-05)			Sample Ty	pe: Water		Sampled: 09/12/05 14:25		
TPH by EPA/LUFT GC/GCMS Meth	ods							
TPH as Diesel	8015DRO	AI52607	09/26/05	09/27/05	0.9302	ND ug/l	93	QB-03
TPH as Gasoline	8260GRO	AI52625	09/21/05	09/23/05	1	ND "	50	-
Surrogate: Tetratetracontane	8015DRO	AI52607	09/26/05	09/27/05		108 % 20-15	2	- 1
Surrogate: Toluene-d8	8260GRO	AI52625	09/21/05	09/23/05		114 % 86-14	1	



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CHEMICAL EXAMINATION REPORT

Page 6 of 15

Trans Tech Consultants

930 Shiloh Rd., Bldg.44, Suite J

Windsor, CA 95492 Attn: Bill Wiggins

Report Date: 09/27/05 14:54

Project No: 1301.01

Project ID: Leland Smith/Pipeline Excavators

Order Number

Receipt Date/Time

Client Code

Client PO/Reference

A509330

09/13/2005 15:25

TRANSTEC

		Alpha A	nalytical	Laborato	ries, Inc.			
	METHOD	BATCH	PREPARED	ANALYZED	DILUTION	RESULT	PQL	NOTE
MW-6 (A509330-05)			Sample Ty	pe: Water		Sampled: 09/12/05 14:25		
Volatile Organic Compounds by EPA	Method 8260B					-		
Benzene	EPA 8260B	AI52702	09/21/05	09/23/05	1	ND ug/l	0.30	
Toluene	11	11	**	**	Ħ	ND "	0.30	
Ethylbenzene	11	11	11	"	Ħ	ND "	0.50	
Xylenes (total)	11	11	17	**	n	ND "	0.50	
Methyl tert-butyl ether	n	11	11	**	н.	2.7 "	0.50	
Di-isopropyl ether	n	11	10	11	Ħ	ND "	0.50	
Ethyl tert-butyl ether	n	n	11	11	**	ND "	0.50	
Tert-amyl methyl ether		**	n	11	***	ND "	0.50	
Tert-butyl alcohol	n		H	11	11	ND"	10	
1,2-Dichloroethane	n	**		**	11	ND "	0.50	
Chlorobenzene	n	**	"	n	10	ND "	0.50	
1,3-Dichlorobenzene	11	11	**	**	n	ND "	0.50	
1,4-Dichlorobenzene	11	"	**	"	н	ND "	0.50	
1,2-Dichlorobenzene	11	"	"	11	11	ND "	0.50	
1,2-Dibromoethane (EDB)	**	**	11	11	n	ND "	0.50	
Surrogate: Bromofluorobenzene	"	"	"	"		103 % 78-138		
Surrogate: Dibromofluoromethane	"	"	"	"		106 % 71-136		
Surrogate: Toluene-d8	"	"	"	"		114 % 88-139		
MW-7 (A509330-06)			Sample Ty	pe: Water		Sampled: 09/12/05 14:05		
TPH by EPA/LUFT GC/GCMS Meth	ods					-		
TPH as Diesel	8015DRO	AI52607	09/26/05	09/27/05	1	ND ug/l	100	
TPH as Gasoline	8260GRO	AI52703	09/25/05	09/26/05	u	ND"	50	
Surrogate: Tetratetracontane	8015DRO	AI52607	09/26/05	09/27/05		129 % 20-152		
Surrogate: Toluene-d8	8260GRO	AI52703	09/25/05	09/26/05		90.8 % 86-141		



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CHEMICAL EXAMINATION REPORT

Page 7 of 15

Trans Tech Consultants

930 Shiloh Rd., Bldg.44, Suite J

Windsor, CA 95492 Attn: Bill Wiggins

Report Date: 09/27/05 14:54

Project No: 1301.01

Project ID: Leland Smith/Pipeline Excavators

Order Number A509330

Receipt Date/Time 09/13/2005 15:25

Client Code TRANSTEC Client PO/Reference

				LIGILO				
		-	-	Laborato				
	METHOD	BATCH	PREPARED	ANALYZED	DILUTION	N RESULT	PQL	NOTE
MW-7 (A509330-06)			Sample Ty	oe: Water		Sampled: 09/12/05 14:05		
Volatile Organic Compounds by EPA	Method 8260B					•		R-06
Benzene	EPA 8260B	AI52702	09/21/05	09/23/05	2	ND ug/l	0.60	
Toluene	IT	"	11	10	н	ND"	0.60	
Ethylbenzene	n	"	n	10	tt .	ND"	1.0	
Xylenes (total)	11	"	n	"	11	ND "	1.0	
Methyl tert-butyl ether	n	**	"	n	n.	43 "	1.0	
Di-isopropyl ether	n	**	n	11	"	ND "	1.0	
Ethyl tert-butyl ether	17	11	н	"	11	ND"	1.0	
Tert-amyl methyl ether	н	17	n	n	**	ND"	1.0	
Tert-butyl alcohol	**	11	11	н	11	ND "	20	
1,2-Dichloroethane	**	"	**	**	11	7.4 "	1.0	
Chlorobenzene	**		"	**		ND"	1.0	
1,3-Dichlorobenzene	"	н	**	11	III	ND"	1.0	
1,4-Dichlorobenzene	**	11	**	"	11	ND "	1.0	
1,2-Dichlorobenzene	**	n	n	11	H	ND"	1.0	
1,2-Dibromoethane (EDB)	"	Ħ	"	11	н	ND "	1.0	
Surrogate: Bromofluorobenzene	"	"	"	"		101 % 78-13	38	
Surrogate: Dibromofluoromethane	"	"	"	"		109 % 71-13		
Surrogate: Toluene-d8	"	"	"	"		112 % 88-13	39	
DW-6100 (A509330-07)			Sample Ty	pe: Water		Sampled: 09/12/05 11:40		
TPH by EPA/LUFT GC/GCMS Metho	ods					•		
TPH as Diesel	8015DRO	AI52607	09/26/05	09/27/05	t	ND ug/l	50	
TPH as Gasoline	8260GRO	AI52625	09/21/05	09/23/05	n	ND "	50	
Surrogate: Tetratetracontane	8015DRO	AI52607	09/26/05	09/27/05		95.2 % 20-1:	52	
Surrogate: Toluene-d8	8260GRO	AI52625	09/21/05	09/23/05		112 % 86-14	41	



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Page 8 of 15

Trans Tech Consultants

930 Shiloh Rd., Bldg.44, Suite J

Windsor, CA 95492 Attn: Bill Wiggins

Report Date: 09/27/05 14:54

Project No: 1301.01

Project ID: Leland Smith/Pipeline Excavators

Receipt Date/Time

Client Code

Client PO/Reference

Order	Number
A5093	330

09/13/2005 15:25

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Alpha Analytical Laboratories, Inc. BATCH PREPARED ANALYZED DILUTION **METHOD RESULT PQL** NOTE DW-6100 (A509330-07) Sample Type: Water Sampled: 09/12/05 11:40 Volatile Organic Compounds by EPA Method 8260B Benzene EPA 8260B AI52702 09/21/05 09/23/05 ND ug/l 0.30 Toluene ND" 0.30 Ethylbenzene ND" 0.50 Xylenes (total) ND" 0.50 Methyl tert-butyl ether ND" 0.50 Di-isopropyl ether ND" 0.50 Ethyl tert-butyl ether ND" 0.50 Tert-amyl methyl ether ND" 0.50 Tert-butyl alcohol ND" 10 1,2-Dichloroethane ND" 0.50 Chlorobenzene ND" 0.50 1.3-Dichlorobenzene ND " 0.50 1,4-Dichlorobenzene ND" 0.50 1,2-Dichlorobenzene ND " 0.50 1,2-Dibromoethane (EDB) ND" 0.50 Surrogate: Bromofluorobenzene 103 % 78-138 Surrogate: Dibromofluoromethane 105 % 71-136 Surrogate: Toluene-d8 88-139 112% DW-6140 (A509330-08) Sample Type: Water Sampled: 09/12/05 12:00 TPH by EPA/LUFT GC/GCMS Methods TPH as Diesel 8015DRO AI52607 09/26/05 09/27/05 ND ug/l 1 50 TPH as Gasoline 8260GRO AI52625 09/21/05 09/23/05 ND" 50 Surrogate: Tetratetracontane 8015DRO AI52607 09/26/05 09/27/05 110% 20-152 Surrogate: Toluene-d8 8260GRO AI52625 09/21/05 114% 86-141 09/23/05



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Page 9 of 15

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Order Number A509330

09/13/2005 15:25

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		Alpha A	Analytical	Laborato	ries, Inc.		
	METHOD	BATCH	PREPARED	ANALYZED	DILUTION	RESULT	PQL NOT
DW-6140 (A509330-08)			Sample Ty	pe: Water		Sampled: 09/12/05 12:0	0
Volatile Organic Compounds by EPA	Method 8260B						
Benzene	EPA 8260B	AI52702	09/21/05	09/23/05	1	ND ug/l	0.30
Toluene	11	11	n	11	11	ND "	0.30
Ethylbenzene	11	"	n	**	11	ND "	0.50
Xylenes (total)	11		n	10	11	ND "	0.50
Methyl tert-butyl ether	17	"	"	11	n'	ND "	0.50
Di-isopropyl ether	**	11	n	н	11	ND "	0.50
Ethyl tert-butyl ether	n	"	H	н	n	ND "	0.50
Tert-amyl methyl ether	11	u	"	H	**	ND "	0.50
Tert-butyl alcohol	n	"	**	n	n	ND "	10
1,2-Dichloroethane	**	*	"	**	·II	ND "	0.50
Chlorobenzene	n	**	19	н	u	ND "	0.50
1,3-Dichlorobenzene	11	"	"	n	"	ND "	0.50
1,4-Dichlorobenzene	**	11	11	17	n	ND "	0.50
1,2-Dichlorobenzene	n	11	**	"	11	ND"	0.50
1,2-Dibromoethane (EDB)	Ħ	11	н	11	31	ND "	0.50
Surrogate: Bromofluorobenzene	"	"	"	"		102 %	78-138
Surrogate: Dibromofluoromethane	"	"	"	"		92.8 %	71-136
Surrogate: Toluene-d8	n	"	"	"		114%	88-139



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Page 10 of 15

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Project No: 1301.01

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Order Number

Receipt Date/Time

Client Code TRANSTEC Client PO/Reference

A509330

09/13/2005 15:25

TPH by EPA/LUFT GC/GCMS Methods - Quality Control

Analyte(s)	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag		
Batch AI52607 - EPA 3510B Wa	ter											
Blank (AI52607-BLK1)				Prepared	& Analyze	d: 09/26/	05					
TPH as Diesel	ND	100	ug/l			10000		· · · · · · · · · · · · · · · · · · ·		QB-03		
Surrogate: Tetratetracontane	175		"	125		140	20-152					
LCS (AI52607-BS1)				Prepared	& Analyze	ed: 09/26/	05					
TPH as Diesel	1650	50	ug/l	2000		82.5	52-136					
Surrogate: Tetratetracontane	159		"	125		127	20-152					
LCS Dup (AI52607-BSD1)				Prepared	& Analyze	ed: 09/26/	05					
TPH as Diesel	1650	50	ug/l	2000		82.5	52-136	0.00	25			
Surrogate: Tetratetracontane	160		u	125	*******	128	20-152					
Batch AI52625 - EPA 5030 Wate	r GCMS											
Blank (AI52625-BLK1)				Prepared:	09/21/05	Analyzed	1: 09/22/05					
TPH as Gasoline	ND	50	ug/l									
Surrogate: Toluene-d8	27.2	- Marie Agentian or	"	25.0		109	86-141					
LCS (AI52625-BS1)				Prepared: 09/21/05 Analyzed: 09/22/05								
TPH as Gasoline	194	50	ug/l	200		97.0	75-126					
Surrogate: Toluene-d8	25.5		"	25.0		102	86-141					
LCS Dup (AI52625-BSD1)				Prepared	09/21/05	Analyzed	1: 09/23/05					
TPH as Gasoline	188	50	ug/l	200		94.0	75-126	3.14	20			
Surrogate: Toluene-d8	25.3		"	25.0		101	86-141					
Matrix Spike (AI52625-MS1)	Sou	rce: A509	330-05	Prepared	09/21/05	Analyzed	1: 09/23/05					
TPH as Gasoline	199	50	ug/l	200	ND	92.0	32-166					

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Nena M. Burgess For Sheri L. Speaks Project Manager

9/27/2005



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Project No: 1301.01

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Page 11 of 15

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Windsor, CA 95492

Attn: Bill Wiggins

Order Number

A509330

Receipt Date/Time

09/13/2005 15:25

Client Code

TRANSTEC

Client PO/Reference

Project ID: Leland Smith/Pipeline Excavators

TPH by EPA/LUFT GC/GCMS Methods - Quality Control

Spike Source %REC RPD %REC Result Limits Analyte(s) Result PQL Level Units **RPD** Limit Flag

Batch AI52625 - EPA 5030 Water GCMS

Matrix Spike (AI52625-MS1)	Source:	A509330-05	Prepared: 09/2	1/05 Analyzed	1: 09/23/05	
Surrogate: Toluene-d8	25.3	n	25.0	101	86-141	

Blank (AI52703-BLK1)				Prepared: (09/25/05	Analyzed	1: 09/26/05			
TPH as Gasoline	ND	50	ug/l			-				
Surrogate: Toluene-d8	22.1		N	25.0		88.4	86-141			
LCS (AI52703-BS1)				Prepared: (09/25/05	Analyzeo	i: 09/26/05			
TPH as Gasoline	212	50	ug/l	200		106	75-126			
Surrogate: Toluene-d8	23.7		u	25.0		94.8	86-141			
LCS Dup (AI52703-BSD1)				Prepared: (09/25/05	Analyzed	1: 09/26/05			
TPH as Gasoline	237	50	ug/l	200		118	75-126	11.1	20	
Surrogate: Toluene-d8	24.4	and the first of t	н	25.0		97.6	86-141			
Matrix Spike (AI52703-MS1)	Sour	ce: A509	330-06	Prepared: (09/25/05	Analyzed	1: 09/26/05			
TPH as Gasoline	261	50	ug/l	200	ND	118	32-166			_
Surrogate: Toluene-d8	24.6		n	25.0		98.4	86-141			



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Page 12 of 15

Trans Tech Consultants

930 Shiloh Rd., Bldg.44, Suite J

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Report Date: 09/27/05 14:54

Project No: 1301.01

Project ID: Leland Smith/Pipeline Excavators

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Client Code

Client PO/Reference

A509330

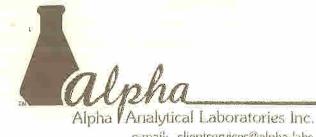
09/13/2005 15:25

TRANSTEC

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte(s)	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD_	RPD Limit	Flag
Batch AI52702 - EPA 5030 Water	GCMS			_						
Blank (AI52702-BLK1)				Prepared:	09/21/05	Analyzed	: 09/22/05			
Benzene	ND	0.30	ug/l	-					***************************************	
Toluene	ND	0.30	**							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	**							
Methyl tert-butyl ether	ND	0.50	11							
Di-isopropyl ether	ND	0.50	11							
Ethyl tert-butyl ether	ND	0.50	11							
Tert-amyl methyl ether	ND	0.50	**							
Tert-butyl alcohol	ND	10	ti							
1,2-Dichloroethane	ND	0.50	**							
Chlorobenzene	ND	0.50	11							
1,3-Dichlorobenzene	ND	0.50	u							
1,4-Dichlorobenzene	ND	0.50	u							
1,2-Dichlorobenzene	ND	0.50	11							
1,2-Dibromoethane (EDB)	ND	0.50	"							
Surrogate: Bromofluorobenzene	26.4		"	25.0		106	78-138			
Surrogate: Dibromofluoromethane	25.2		"	25.0		101	71-136			
Surrogate: Toluene-d8	27.2		"	25.0		109	88-139			
LCS (AI52702-BS1)				Prepared:	09/21/05	Analyzed	1: 09/22/05			
Benzene	5.35	0.30	ug/l	5.00		107	68-129			
Toluene	5.96	0.30	"	5.00		119	76-137			
Ethylbenzene	5.80	0.50	,	5.00		116	78-136			
Xylenes (total)	17.2	0.50	**	15.0		115	76-134			
Methyl tert-butyl ether	5.12	0.50	19	5.00		102	64-141			
Di-isopropyl ether	5.66	0.50	"	5.07		112	80-132			
Ethyl tert-butyl ether	5.41	0.50	11	5.08		106	66-138			

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CHEMICAL EXAMINATION REPORT

Page 13 of 15

Trans Tech Consultants 930 Shiloh Rd., Bldg.44, Suite J

Windsor, CA 95492 Attn: Bill Wiggins

Report Date: 09/27/05 14:54

Project No: 1301.01

Project ID: Leland Smith/Pipeline Excavators

Order Number

Receipt Date/Time

Client Code

Client PO/Reference

A509330

09/13/2005 15:25

TRANSTEC

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte(s)	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch AI52702 - EPA 5030 Water	GCMS									
LCS (AI52702-BS1)				Prepared:	09/21/05	Analyzed	: 09/22/05			
Tert-amyl methyl ether	5.38	0.50	n	5.16		104	58-142			
Tert-butyl alcohol	99.6	10	**	98.2		101	70-139			
1,2-Dichloroethane	5.38	0.50	Ħ	5.00		108	65-125			
Chlorobenzene	5.71	0.50	"	5.00		114	75-127			
1,3-Dichlorobenzene	5.78	0.50	W	5.00		116	78-129			
1,4-Dichlorobenzene	5.78	0.50	**	5.00		116	82-124			
1,2-Dichlorobenzene	5.74	0.50	**	5.00		115	81-125			
1,2-Dibromoethane (EDB)	5.50	0.50	**	5.00		110	80-130			
Surrogate: Bromofluorobenzene	27.3		"	25.0	,	109	78-138			
Surrogate: Dibromofluoromethane	25.8		11	25.0		103	71-136			
Surrogate: Toluene-d8	27.1		"	25.0		108	88-139			
LCS Dup (AI52702-BSD1)				Prepared:	: 09/21/05	Analyzed	: 09/22/05			
Benzene	5.36	0.30	ug/l	5.00		107	68-129	0.187	25	
Toluene	5.68	0.30	11	5.00		114	76-137	4.81	25	
Ethylbenzene	5.57	0.50	11	5.00		111	78-136	4.05	25	
Xylenes (total)	16.8	0.50	"	15.0		112	76-134	2.35	25	
Methyl tert-butyl ether	5.27	0.50	"	5.00		105	64-141	2.89	25	
Di-isopropyl ether	5.54	0.50	"	5.07		109	80-132	2.14	25	
Ethyl tert-butyl ether	5.28	0.50	**	5.08		104	66-138	2.43	25	
Tert-amyl methyl ether	5.38	0.50	11	5.16		104	58-142	0.00	25	
Tert-butyl alcohol	115	10	н	98.2		117	70-139	14.4	25	
1,2-Dichloroethane	5.39	0.50	н	5.00		108	65-125	0.186	25	
Chlorobenzene	5.72	0.50	17	5.00		114	75-127	0.175	25	
1,3-Dichlorobenzene	5.72	0.50	Ħ	5.00		114	78-129	1.04	25	
1,4-Dichlorobenzene	5.58	0.50	11	5.00		112	82-124	3.52	25	
1,2-Dichlorobenzene	5.48	0.50	"	5.00		110	81-125	4.63	25	

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Page 14 of 15

Trans Tech Consultants

930 Shiloh Rd., Bldg.44, Suite J

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Report Date: 09/27/05 14:54

Project No: 1301.01

Project ID: Leland Smith/Pipeline Excavators

Order Number

Receipt Date/Time

Client Code

Client PO/Reference

A509330

09/13/2005 15:25

TRANSTEC

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte(s)	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch A <mark>I52702 - EPA 5030 Wate</mark> r	GCMS									
LCS Dup (AI52702-BSD1)				Prepared:	09/21/05	Analyzed	: 09/22/05			
1,2-Dibromoethane (EDB)	5.58	0.50	11	5.00		112	80-130	1.44	25	
Surrogate: Bromofluorobenzene	27.6		"	25.0		110	78-138			
Surrogate: Dibromofluoromethane	<i>26.1</i>		"	25.0		104	71-136			
Surrogate: T <mark>oluene-d</mark> 8	27.3		n	25.0		109	88-139			
Matrix Spike (AI52702-MS1)	Sou	rce: A509:	330-05	Prepared:	09/21/05	Analyzed	: 09/22/05			
Benzene	5.49	0.30	ug/l	5.00	ND	110	39- <mark>1</mark> 42			
Toluene	5.84	0.30	n	5.00	ND	117	44-148			
Ethylbenzene Ethylbenzene	5.67	0.50	*	5.00	ND	113	42- <mark>14</mark> 8			
Xylenes (total)	16.4	0.50	"	15.0	ND	109	43-145			
Methyl tert-butyl ether	7.95	0.50	"	5.00	2.7	105	29-161			
Di-isopropyl ether	5.67	0.50	"	5.07	ND	112	42-156			
Ethyl tert-butyl ether	5.29	0.50	11	5.08	ND	104	42-151			
Fert-amyl methyl ether	5.33	0.50	11	5.16	ND	103	38-148			
Tert-butyl alcohol	125	10	"	98.2	ND	127	42-171			
1,2-Dichloroethane	5.65	0.50	**	5.00	ND	113	36-136			
Chlorobenzene	5.67	0.50	**	5.00	ND	113	41-140			
1,3-Dichlorobenzene	5.69	0.50	**	5.00	ND	114	42-139			
1,4-Dichlorobenzene	5.60	0.50	**	5.00	ND	112	41-142			
1,2-Dichlorobenzene	5.66	0.50	11	5.00	ND	113	39-145			
1,2-Dibromoethane (EDB)	5.57	0.50	"	5.00	ND	111	40-147			
Surrogate: Bromofluorobenzene	27.0		"	25.0		108	78-138			
Surrogate: Dibromofluoromethane	25.9		ø	25.0		104	71-136			
Surrogate: Toluene-d8	26.7		v	25.0		107	88-139			

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Receipt Date/Time

09/13/2005 15:25

Client Code

TRANSTEC

Report Date: 09/27/05 14:54 Project No: 1301.01

Project ID: Leland Smith/Pipeline Excavators Client PO/Reference

Notes and Definitions

Order Number

A509330

R-06 The Reporting Limits for this analysis have been raised to account for matrix interference.

The Reporting Limits for this analysis are elevated due to sample foaming. R-04

The method blank contains analyte at a concentration above the MRL; sample reporting limits were raised as **QB-03**

necessary.

D-09 Results in the diesel organics range are primarily due to overlap from a heavy oil range product.

D-07 Analysis of this sample indicates the presence of hydrocarbons lower in molecular weight than diesel.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

PQL Practical Quantitation Limit

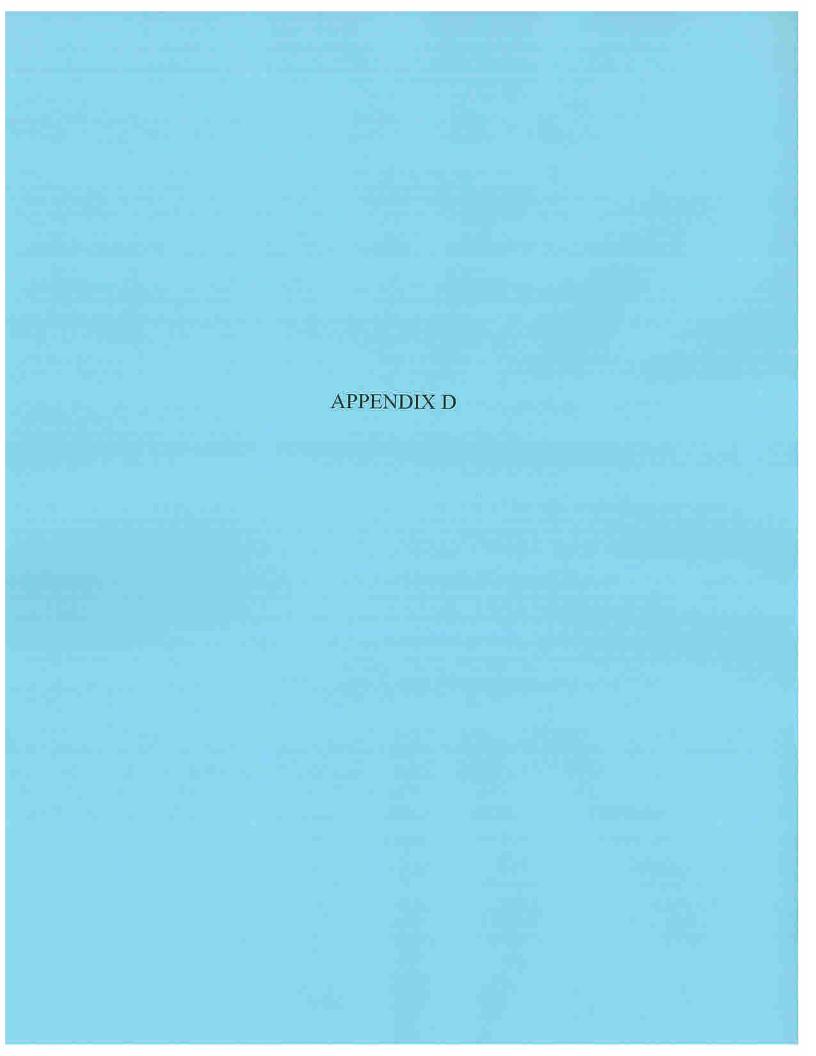
Alpha Malytical Laboratories Inc.

Chain of Custody Record Work Order

Analytical Laboratories Inc. 208 Mason Street, Ukiah, California 95482 e-mail: clientservices@alpha-labs.com • Phone: (707) 468-0401 • Fax: (707) 468-5267

Lab No. 14509330

For Lab Use Only 24 hr 48 hr 48 hr Approval Required 2 wk TAT Signature below authorizes work under terms stated on reverse side. Drinking Water State System/Source Number. ₹ California EDF Report? Sampling Company Log Code: **Analysis Request** EDF to (Email Address): Global ID: Time Time MY 2041 RIEX DEESE C 549-HAL Date Project Address: SFIS SEBASTOPOL P.D. Matrix lios 1301.01 Ł Water Project Number: Suov Preservative Misc. Supplies: Quote # SEBASTOPOL HISSON HAO3 HCF Received for Laboratory by: PEPEL INE Container Sleeve Mileage: Amber Poly Project Name: AOV Im04 Received by: Received by: Travel and Site Time: 123 Time 25 3.75 3 45 P.O.# 37.00 3:15 1.85 Bill to: Sampling Date CONS 9 Project Contact (Hardcopy or PDF to): Sample Condition on Receipt TRANSTECH DW-6140 DM-6100 Samplers Signature: 9-MW H-MW Relinquished by: Designation MW-5 77 Company Name: Mailing Address: Relinquished by: 38 Relinquished by: NW-MW-Sample Phone/Fax:



Appendix D: Historical Groundwater Analytical Results

Sample Date	Sample ID	TPH- gasoline	TPH- diesel	TPH- motor oil	В	T	E	X	MtBE
					µg/L				
	MW-1	4,500	2,200*	NA	<5.0	<5.0	<5.0	<15	230
09/18/00	MW-2	<50	<50	NA	<0.5	<0.5	<0.5	<1.5	26
	MW-3	69,000	35,000*	NA	8,400	20,000	1,500	6,500	500
	MW-1	1,800	360*	NA	<1.0	<1.0	7.4	<1.0	180
06/06/01	MW-2	<50	<50	NA	<1.0	<1.0	<1.0	<1.0	43
	MW-3	73,000	2,300*	NA	12,000	34,000	1,900	8,600	480
	DW-6100	<50	<50	NA	<1.0	<1.0	<1.0	<1.0	<1.0
06/07/01	DW-6140	<50	<50	NA	<1.0	<5.0	<5.0	<5.0	52
	MW-1	2,000	610*	NA	<2.0	<2.0	3.9	2.9	96
	MW-2	<50	<50	NA	<1.0	<1.0	<1.0	<1.0	10
09/13/01	MW-3	55,000	2,400*	NA	8,300	18,000	1,000	3,800	1,100
	DW-6100	<50	<50	NA	<1.0	<1.0	<1.0	<1.0	<1.0
	DW-6140	<50	<50	NA	<1.0	<1.0	<1.0	<1.0	22
	MW-1	3,700	1,600*	NA	59	120	31	59	130
	MW-2	120	<50	NA	9.3	33	3.1	13	14
12/13/01	MW-3	71,000	2,500*	NA	11,000	19,000	1,400	6,000	260
	DW-6100	<50	<50	NA	<0.5	<0.5	<0.5	<1.5	<1.0
	DW-6140	<50	<50	NA	<0.5	<0.5	<0.5	<1.5	15
* = Highe	r boiling point c	onstituents of	gasoline are p	oresent.			-	<u> </u>	73



Sample Date	Sample ID	TPH- gasoline	TPH- diesel	TPH- motor oil	В	Т	E	x	MtBE
					μg/L				
	MW-1	3,700	1,300*	<100	8.5	38	16	13	200
	MW-2	69	<50	<100	2.4	14	1.1	5.1	29
	MW-3	130,000	2,300*	<1,000	9,200	21,000	1,800	6,900	430
02/21/02	MW-4	<50	<50	<100	<0.30	<0.30	<0.50	<0.50	5.0
	MW-5	<50	<50	<100	<0.30	<0.30	<0.50	<0.50	45
	MW-6	140	63	<100	<0.30	3.0	<0.50	<0.50	120**
	MW-7	<50	<50	<100	1.2	7.6	0.70	3.5	2.9***
	MW-1	3,300	1,200*	NA	<30	<30	<50	<50	210
	MW-2	<50	<50	NA	<0.30	<0.30	<0.50	<0.50	21
	MW-3	150,000	4,800*	NA.	9,500	27,000	1,900	7,900	370***
	MW-4	<50	54	NA	<0.30	<0.30	<0.50	<0.50	4.0
05/20/02	MW-5	<50	<50	NA	<0.30	<0.30	<0.50	<0.50	68
	MW-6	84	55	NA	< 0.30	<0.30	<0.50	<0.50	49
	MW-7	<50	<50	NA	<0.30	<0.30	<0.50	<0.50	37***
	DW-6140	<50	<50	<50	<0.30	<0.30	<0.50	<0.50	18
09/06/02	DW-6100	<50	<50	NA	<1.0	<1.0	<1.0	<1.0	<1.0
	MW-1	3,500	1,000*	NA	<2.0	<2.0	2.9	<2.0	130
	MW-2	<50	<50	NA	<1.0	<1.0	<1.0	<1.0	16
	MW-3	85,000	6,600*	NA	8,500	21,000	1,500	6,400	340
09/06/02	MW-4	<50	<50	NA	<1.0	<1.0	<1.0	<1.0	34
	MW-5	65	<50	NA	<1.0	<1.0	<1.0	<1.0	65
	MW-6	<50	<50	NA	<1.0	<1.0	<1.0	<1.0	11
	MW-7	<50	<50	NA	1.5	4.3	<1.0	4.3	5.7



^{* =} Higher boiling point constituents of gasoline are present.

** = Additional oxygenated fuel additives detected (see laboratory reports).

*** = 1,2-Dichloroethane (a lead scaveger) detected (see laboratory reports).

Sample Date	Sample ID	TPH- gasoline	TPH- diesel	TPH- motor oil	В	T	E	X	MtBE
					μg/L				
	MW-1	3,500	970*	NA	<2.0	<2.0	<2.0	<2.0	150
	MW-2	<50	<50	NA	<1.0	<1.0	<1.0	<1.0	23
	MW-3	69,000	6,500*	NA	11,000	17,000	1,100	4,700	310
12/18/02	MW-4	<50	<50	NA	<1.0	<1.0	<1.0	<1.0	34
12/18/02	MW-5	<50	<50	NA	<1.0	<1.0	<1.0	<1.0	56
	MW-6	<50	<50	NA	<1.0	<1.0	<1.0	<1.0	10
	MW-7	<50	<50	NA	<1.0	<1.0	<1.0	<1.0	6.8**
	DW-6100	<50	<50	NA	<1.0	<1.0	<1.0	<1.0	<1.0
	MW-1	3,400	1,700*	NA	<2.0	<2.0	3.5	<2.0	180
	MW-2	<50	<50	NA	<1.0	<1.0	<1.0	<1.0	21
	MW-3	59,000	12,000*	NA	10,000	19,000	1,400	5,500	450
02/10/02	MW-4	<50	<50	NA	<1.0	<1.0	<1.0	<1.0	5.1
03/19/03	MW-5	<50	<50	NA	<1.0	<1.0	<1.0	<1.0	23
	MW-6	61	<50	NA	<1.0	<1.0	<1.0	<1.0	19
	MW-7	<50	<50	NA	<1.0	<1.0	<1.0	<1.0	12**
	DW-6140	<50	<50	NA	<1.0	<1.0	<1.0	<1.0	<1.0
03/20/03	DW-6100	<50	<50	NA	<1.0	<1.0	<1.0	<1.0	<1.0

 ^{* =} Higher boiling point constituents of gasoline are present.
 ** = 1,2-Dichloroethane (a lead scaveger) detected (see laboratory reports).

Sample Date	Sample ID	TPH- gasoline	TPH- diesel	TPH- motor oll	В	T	E	X	MtBE
					μд	T			
	MW-1	1,900	1,000*	NA	<2.0	<2.0	<2.0	<2.0	99
	MW-2	<50	<50	NA	<1.0	<1.0	<1.0	<1.0	17
	MW-3	49,000	12,000*	NA	9,300	23,000	1,400	6,100	230**
07/09/03	MW-4	<50	<50	NA	<1.0	<1.0	<1.0	<1.0	3.7
07/09/03	MW-5	<50	<50	NA	<1.0	<1.0	<1.0	<1.0	22
	MW-6	<50	<50	NA	<1.0	<1.0	<1.0	<1.0	9.4
	MW-7	<50	<50	NA	<1.0	<1.0	<1.0	<1.0	10**
	DW-6140	<50	<50	NA	<1.0	<1.0	<1.0	<1.0	4.0
07/25/03	DW-6100	<50	<50	NA	<1.0	<1.0	<1.0	<1.0	<1.0
	MW-1	2,200	1,100*	NA	<2.0	<2.0	<2.0	<2.0	140
İ	MW-2	<50	<50	NA	<1.0	<1.0	<1.0	<1.0	14
	MW-3	55,000	6,800*	NA	9,400	22,000	1,500	6,400	270**
	MW-4	<50	<50	NA	<1.0	<1.0	<1.0	<1.0	17
09/18/03	MW-5	<50	<50	NA	<1.0	<1.0	<1.0	<1.0	31
	MW-6	<50	<50	NA	<1.0	<1.0	<1.0	<1.0	4.8
	MW-7	<50	<50	NA	<1.0	<1.0	<1.0	<1.0	4.1**
	DW-6140	<50	<50	NA	<1.0	<1.0	<1.0	<1.0	17
- 1864	DW-6100	<50	<50	NA	<1.0	<1.0	<1.0	<1.0	<1.0

^{* =} Higher boiling point constituents of gasoline are present.

** = 1,2-Dichloroethane (a lead scaveger) detected (see laboratory reports).

Sample	Sample ID	TPH- gasoline	TPH- diesel	В	T	E	x	MtBE
Date					μg/L			
	MW-1	2,000	800*	<2.0	<2.0	<2.0	<2.0	130
	MW-2	<50	<50	<1.0	<1.0	<1.0	<1.0	12
	MW-3	75,000	6,100*	8,100	15,000	1,500	6,500	300**
	MW-4	<50	<50	<1.0	<1.0	<1.0	<1.0	30
12/02/03	MW-5	<50	<50	<1.0	<1.0	<1.0	<1.0	28
	MW-6	<50	<50	<1.0	<1.0	<1.0	<1.0	4.5
	MW-7	<50	<50	<1.0	<1.0	<1.0	<1.0	3.5***
	DW-6140	<50	<50	<1.0	<1.0	<1.0	<1.0	4.8
	DW-6100	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0
	MW-1	3,600	890	<6.0	<6.0	<10	<10	140
	MW-2	<50	<50	<1.5	<1.5	<2.5	<2.5	19
:	MW-3	68,000	7,400	8,600	19,000	3000	11,000	390
	MW-4	<50	<50	<0.6	0.68	<1.0	<1.0	2.6
3/31/04	MW-5	<50	<50	<0.6	<0.6	<1.0	<1.0	19
	MW-6	<50	54	0.96	3.5	<1.0	<1.0	16
	MW-7	<50	<50	<0.3	<0.3	<0.5	<0.5	9.8
	DW-6140	<50	<50	<0.3	<0.3	<0.5	<0.5	0.53
	DW-6100	<50	<50	<0.3	<0.3	<0.5	<0.5	<0.5

Less than the laboratory test method detection limit.
 Higher boiling components of gasoline are present in the early boiling range for diesel.
 1,2-Dichloroethane was detected at 130μg/L.

^{= 1,2-}Dichloroethane was detected at 5.9 μ g/L.

Sample	Sample	ТРН- д	TPH- d	В	Ţ	E	X	MtBE
Date	ID				μg/L			
	MW-1	1,700	570	<3.0	<3.0	<5.0	<5.0	110
	MW-2	<50	<50	<0.60	<0.60	<1.0	<1.0	13
	MW-3	160,000	5,800	10,000	22,000	1,400	6,500	<500**
	MW-4	<50	<50	<1.5	<1.5	<2.5	<2.5	11
6/08/04	MW-5	<50	<50	<1.5	<1.5	<2.5	<2.5	20
	MW-6	<50	<50	<0.30	<0.30	<0.50	<0.50	7.4
	MW-7	<50	<50	<0.30	<0.30	<0.50	<0.50	5.4
	DW-6140	<50	<50	<0.30	<0.30	<0.50	<0.50	7.9
40.	DW-6100	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50
			thod detection l nt for matrix in					
	MW-1	2,300	370*	<3.0	<3.0	<5.0	<5.0	100
	MW-2	<50	<50	<0.60	<0.60	<1.0	<1.0	8.6
	MW-3	140,000	5,300*	13,000	28,000	1,800	7,300	320
	MW-4	<50	89	<0.30	<0.30	<0.50	<0.50	220
9/07/04	MW-5	<50	<50	<0.30	<0.30	<0.50	<0.50	19
	MW-6	<50	<50	<0.30	<0.30	<0.50	<0.50	2.6
	MW-7	<50	<50	<0.30	<0.30	<0.50	<0.50	8.4 +
	DW-6140	<50	<50	<0.30	<0.30	<0.50	<0.50	7.1
	DW-6100	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50

⁼ Less than the laboratory test method detection limit. = 1,2-Dichloroethane (a lead scavenger) was detected at 3.5 μ g/L.

⁼ Results in the diesel organics range are primarily due to overlap from a gasoline range product. = Elevated detection limit to account for matrix interference.

Sample	Sample	ТРН- д	TPH- d	В	т	E	X	MtBE
Date	D D	μg/L						
	MW-1**	2,000	220*	<1.5	<1.5	<2.5	<2.5	86
	MW-2	<50	<50	<0.30	<0.30	<0.50	<0.50	9.9
	MW-3				removed		•	
	MW-4***	<250	<50	<1.5	<1.5	<2.5	<2.5	86
12/09/04	MW-5	NS	NS	NS	NS	NS	NS	NS
	MW-6	<50	<50	<0.30	<0.30	<0.50	<0.50	2.7
	MW-7	NS	NS	NS	NS	NS	NS	NS
	DW-6140	NS	NS	NS	NS	NS	NS	NS
	DW-6100	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50

NS = not sampled.

< = less than the laboratory test method detection limit.

* = results in the diesel organics range are primarily due to overlap from a gasoline range product.

** = elevated detection limit to account for matrix interference.

*** = the reporting limits are elevated due to sample foaming.

					<u> </u>			
	MW-1***	2,300	860*	<6.0	<6.0	<10	<10	89
	MW-2	<50	<50	<0.30	<0.30	<0.50	<0.50	34
	MW-3				-removed			
	MW-4	<50	<50	<0.30	<0.30	<0.50	<0.50	8.2
03/31/05	MW-5***	<1,000	<50	<6.0	<6.0	<10	<10	<10
	MW-6	<50	<50	<0.30	<0.30	<0.50	<0.50	8.8
	MW-7	<50	<50	<0.30	<0.30	<0.50	<0.50	32 ⁺
	DW-6100	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50
	DW-6140	<50	<50	<0.30	<0.30	<0.50	<0.50	0.58

NS = Not sampled.

< = Less than the laboratory test method detection limit.

 $^{+}$ = 1,2-Dichloroethane detected at 5.0 μ g/L.

* = Results in the diesel organics range are primarily due to overlap from a gasoline range product.

** = Elevated detection limit to account for matrix interference.

** = The reporting limits are elevated due to sample foaming.

Sample	Sample	TPH- g	TPH- d	В.	T	E	X	MtBE
Date	10	μg/L						
	MW-1	1,400	190*	<0.30	0.39	<0.50	<0.50	40
	MW-2	<50	<50	<0.30	<0.30	<0.50	<0.50	31
	MW-3				removed		•	·
	MW-4	<50	<50	<0.30	<0.30	<0.50	<0.50	45
06/27/05	MW-5	<50	<50	<0.30	<0.30	<0.50	<0.50	15
	MW-6	68	<50	<0.30	<0.30	<0.50	<0.50	8.9
	MW-7	<50	<50	<0.30	<0.30	<0.50	<0.50	39+
	DW-6100	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50
	DW-6140	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50

< = Less than the laboratory test method detection limit.

= Analysis of this sample indicates the presence of hydrocarbons lower in molecular weight than diesel.

09/12/05	MW-1	1,300	230*	<6.0	<6.0	<10	<10	43
	MW-2	<500	97	<3.0	<3.0	<5.0	<5.0	19
	MW-3	removed						
	MW-4	<1000	<100	<6.0	<6.0	<10	<10	34
	MW-5	<50	550**	<0.30	<0.30	<0.50	<0.50	17
	MW-6	<93***	<50	<0.30	<0.30	<0.50	<0.50	2.7
	MW-7	<100	<50	<0.30	<0.30	<0.50	<0.50	43 +
	DW-6100	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50
	DW-6140	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50

< = Less than the laboratory test method detection limit.

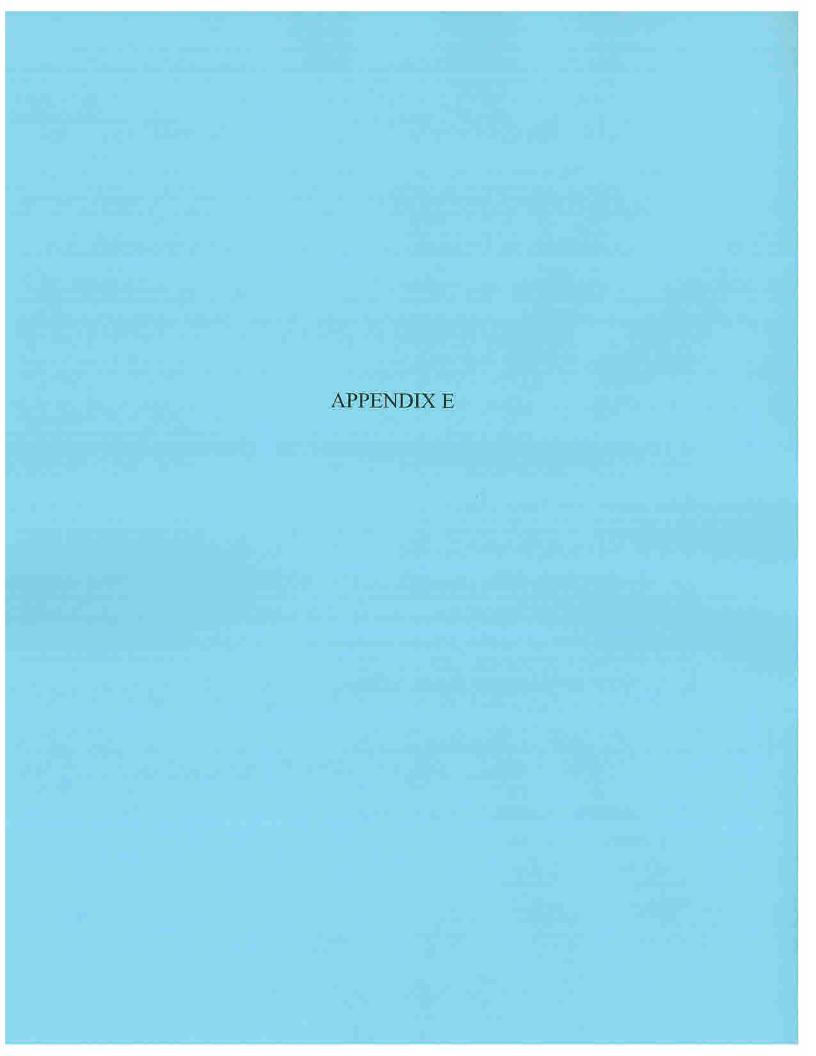
 $^{^{+}}$ = 1,2-Dichloroethane detected at 5.6 μ g/L.

 $^{^{+}}$ = 1,2-Dichloroethane detected at 7.4 μ g/L.

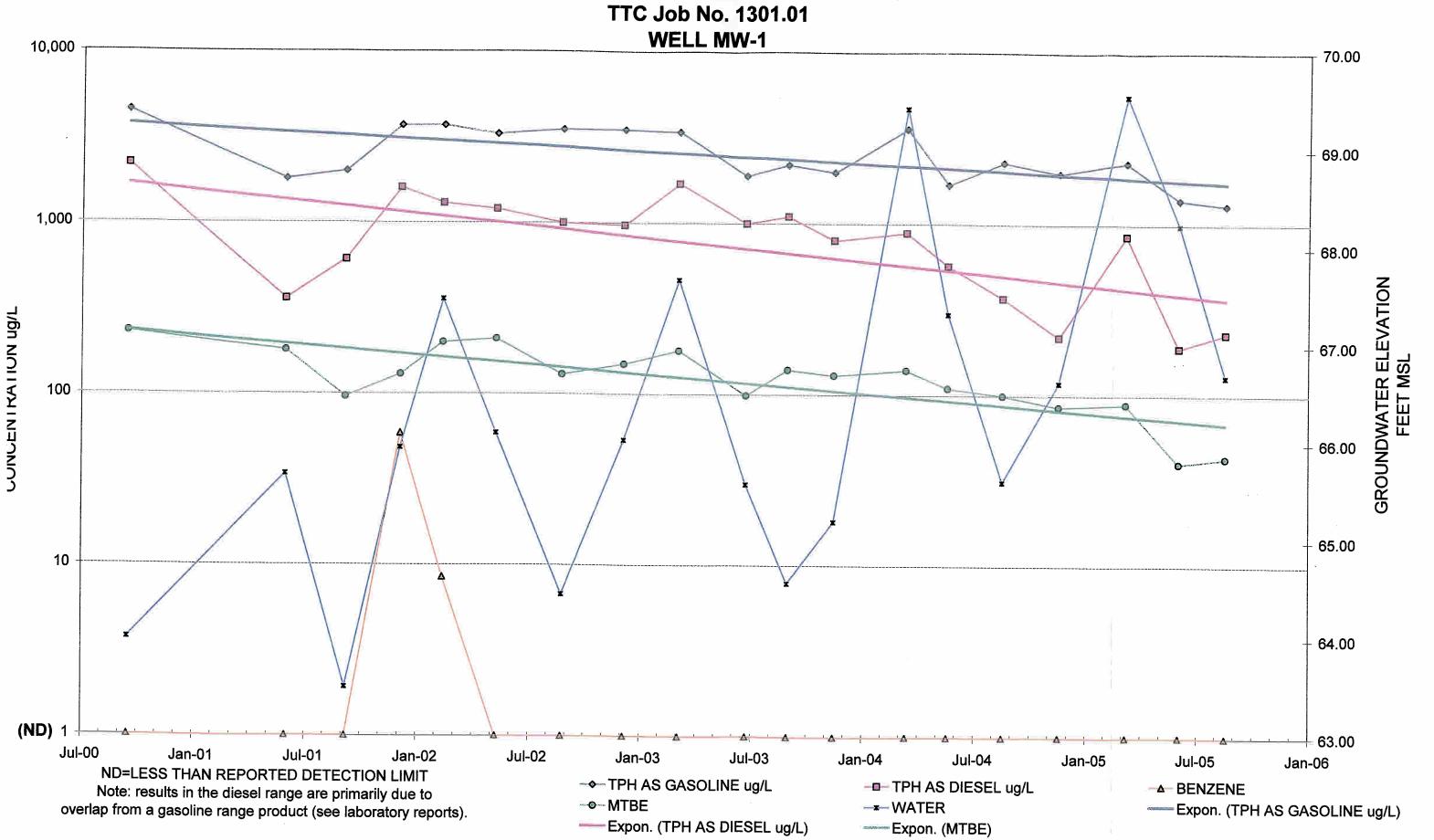
^{* =} Analysis of this sample indicates the presence of hydrocarbons lower in molecular weight than diesel.

^{** =} Results in the diesel organics range are primarily due to overlap from a heavy oil range product.

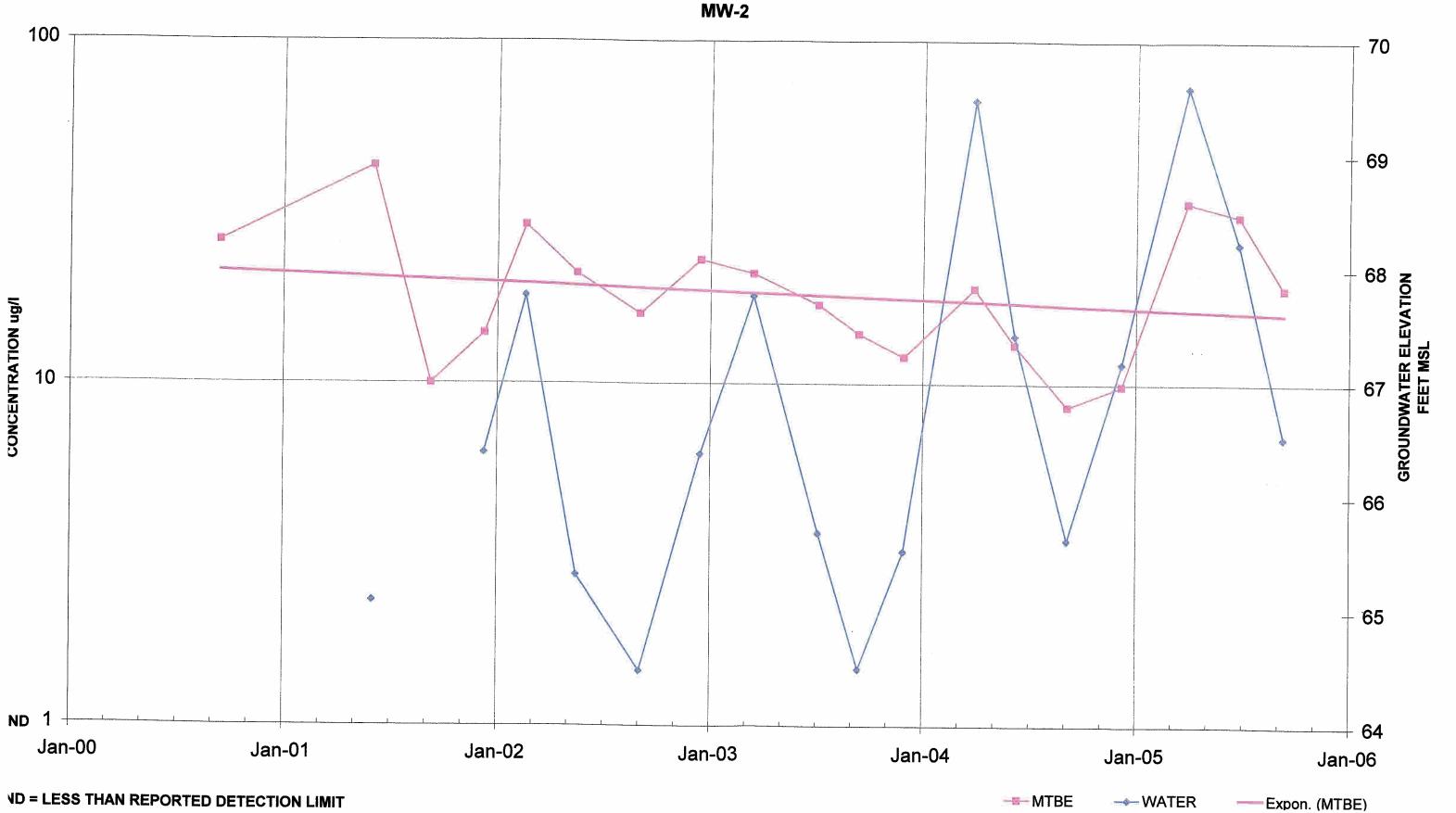
^{*** =} The method blank contains analyte at a concentration above the MRL; sample reporting limits were raised as necessary.



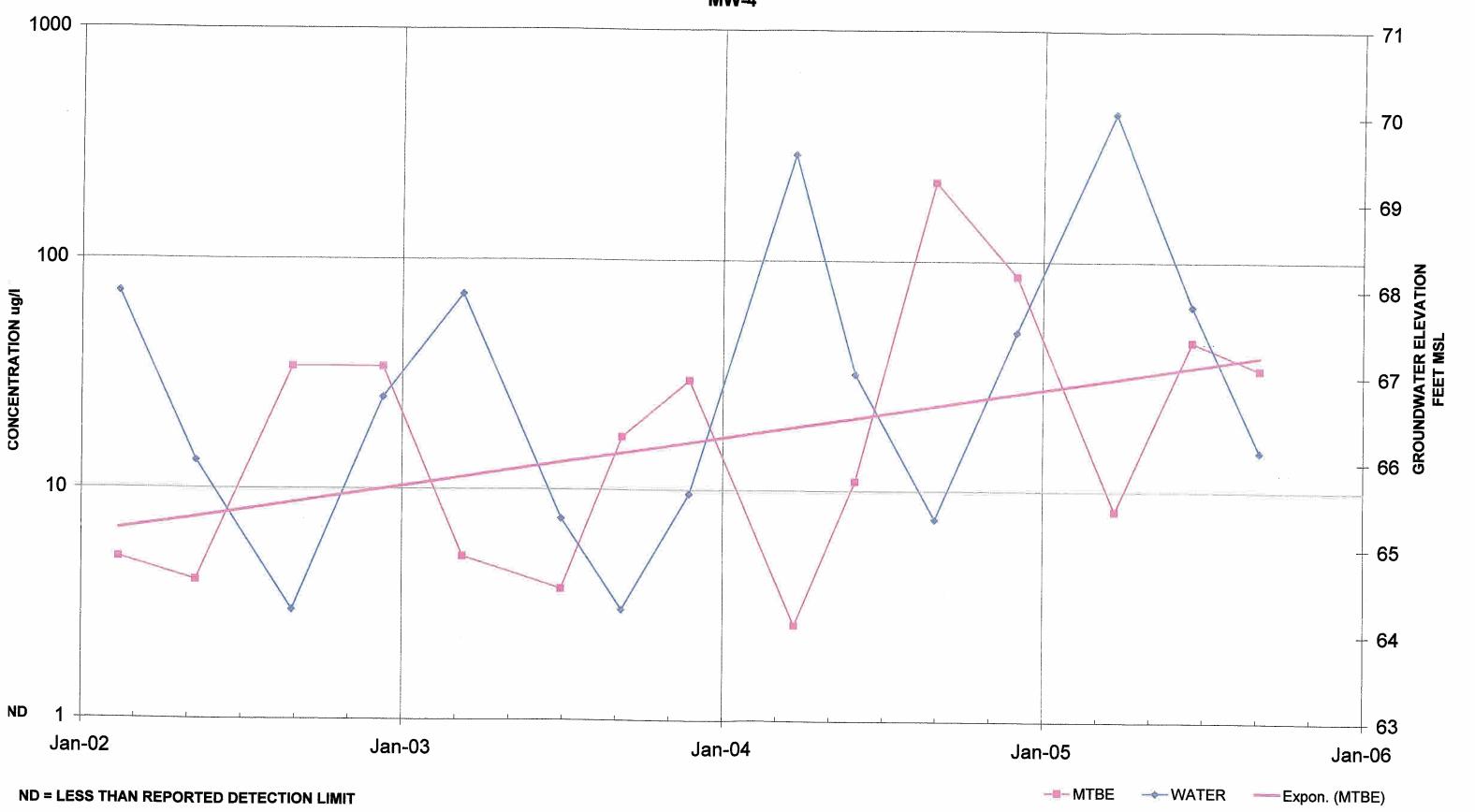
TIME vs. CONCENTRATION GRAPH
PIPELINE EXCAVATORS 5715 SEBASTOPOPL ROAD, SEBASTOPOL



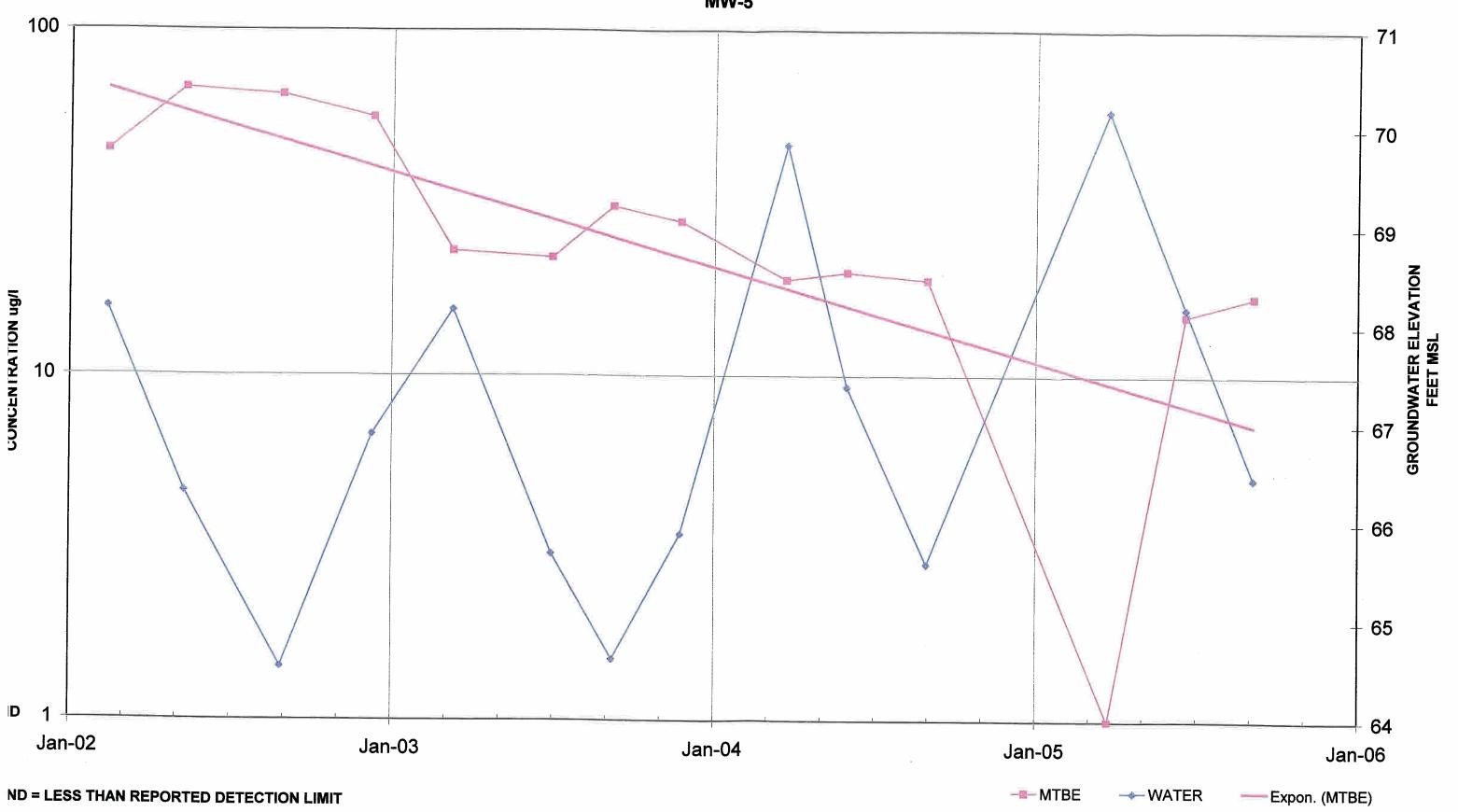
TIME vs. MTBE CONCENTRATION GRAPH PIPELINE EXCAVATORS 5715 SEBASTOPOL ROAD, SEBASTOPOL TTC JOB NO. 1301.01



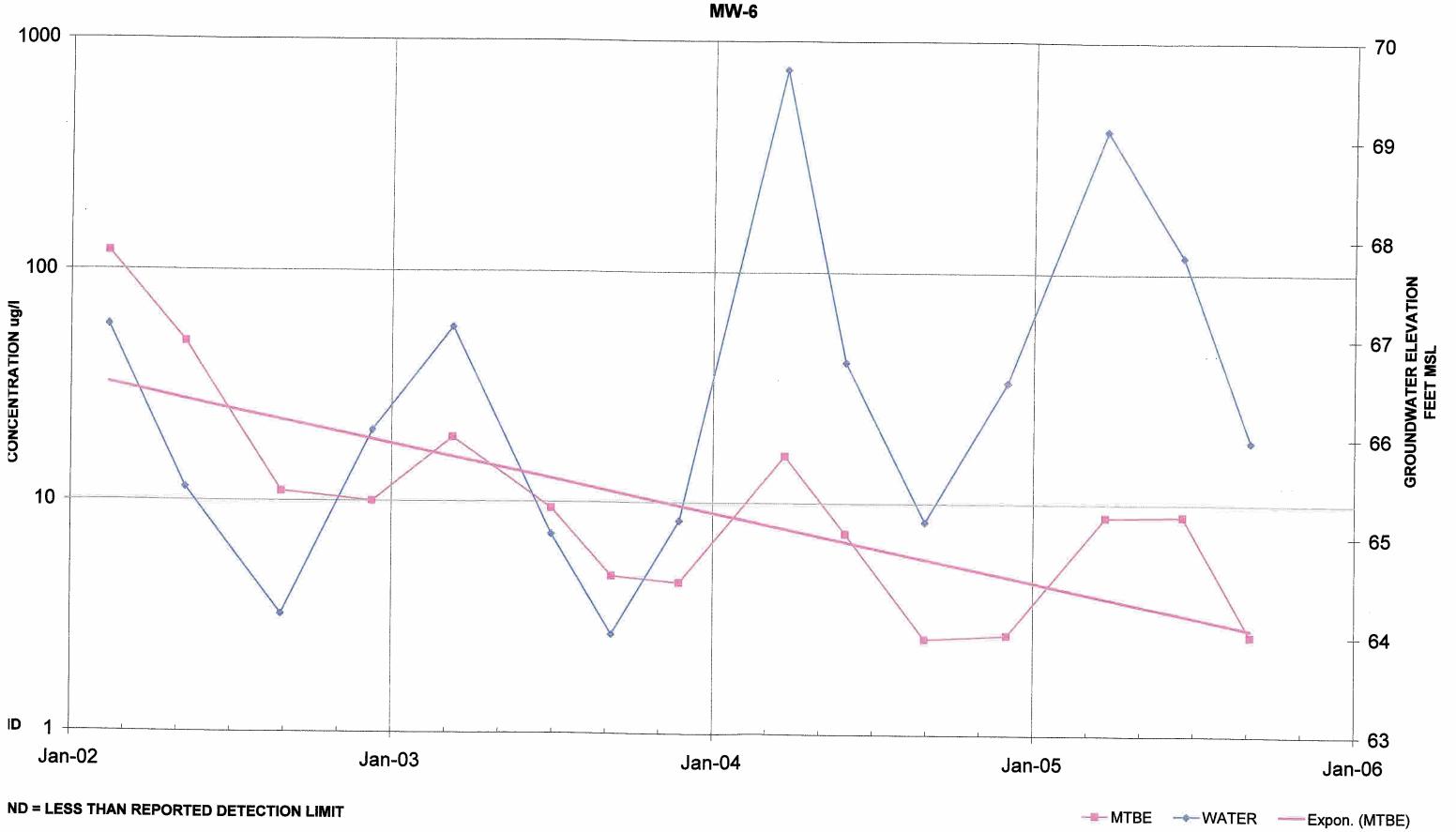
TIME vs. MTBE CONCENTRATION GRAPH PIPELINE EXCAVATORS 5715 SEBASTOPOL ROAD, SEBASTOPOL TTC JOB NO. 1301.01 MW-4



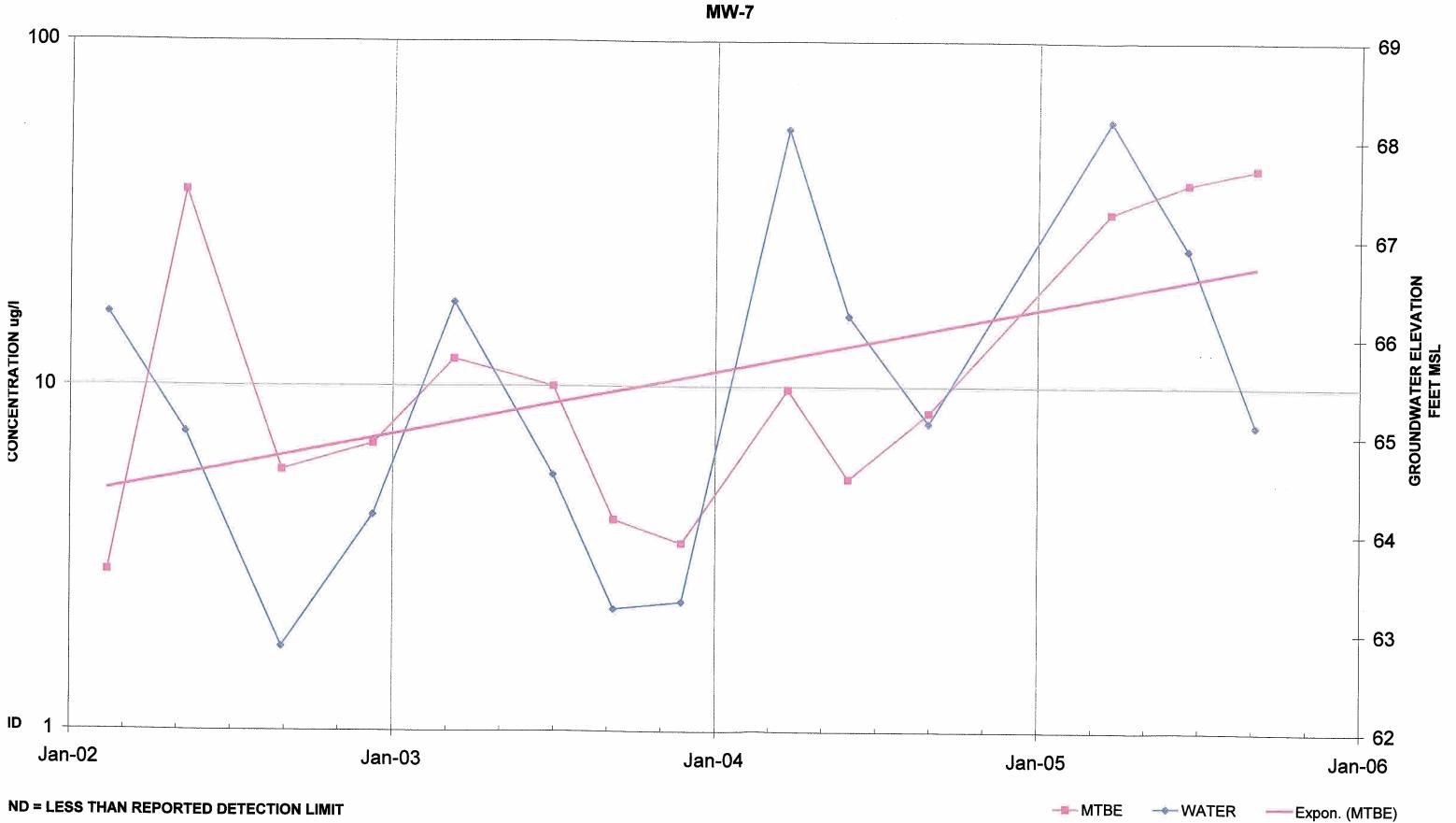
TIME vs. MTBE CONCENTRATION GRAPH PIPELINE EXCAVATORS 5715 SEBASTOPOL ROAD, SEBASTOPOL TTC JOB NO. 1301.01 MW-5



TIME vs. MTBE CONCENTRATION GRAPH PIPELINE EXCAVATORS 5715 SEBASTOPOL ROAD, SEBASTOPOL TTC JOB NO. 1301.01



TIME vs. MTBE CONCENTRATION GRAPH PIPELINE EXCAVATORS 5715 SEBASTOPOL ROAD, SEBASTOPOL TTC JOB NO. 1301.01



DISTRIBUTION LIST FOR 3RD QUARTER 2005 MONITORING REPORT

PIPELINE EXCAVATORS 5715 SEBASTOPOL ROAD SEBASTOPOL, CALIFORNIA 95473

> DATED OCTOBER 2005 JOB NO. 1301.01

Mr. Dale Radford Sonoma County Department of Health Services Environmental Health Division 3273 Airway Drive, Suite D Santa Rosa, California 95403-2097

North Coast Regional Water Quality Control Board 5550 Skylane Boulevard, Suite A Santa Rosa, California 95403

